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JULY 2021

African Review
of BUSINESS and TECHNOLOGY

"Virtual card issuance has the potential to transform into a strategic, high value generating asset for banks."
Hany Fekry, regional president – Northern and sub-Saharan Africa, Network International

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Editor's Note

Welcome to the July issue. Our cover story is all about trucks, with exciting news from FAW Trucks about their expansion into the Namibian market. Already a well-established brand in southern Africa, this move will further cement their position in the region, page 24.

Economist Moin Siddiqi provides a comprehensive overview of the major policy reforms needed for sub-Saharan Africa to bounce back from the economic and human toil caused by the global pandemic, page 20.

President Muhammadu Buhari's government stands firm in its commitment to bolster Nigeria's railway infrastructure, with rail lines such as Kano-Maradi showing enormous trade and transport potential with neighbouring Niger.

Elsewhere in the issue, the genset market is showing signs of confidence after posting strong half yearly results, with eastern Africa being the strongest performer among the regions, page 35.

And finally, are tailings dams a ticking environmental time bomb for many mining operators unless they implement sustainable waste solutions? This is an insightful account into the industry standards in place that companies must adhere to, in order to avoid an ecological disaster, page 44.

Samantha Payne, *Editor*

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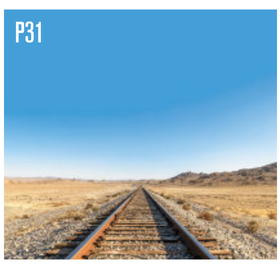


Orange and AXA acquire majority stake in DabaDoc digital healthcare platform

The digital platform aims to digitalise access to healthcare for its users across the continent.

Orange Middle East and Africa and AXA CIMA entities (led by AXA Assurance Maroc) have confirmed that the two companies have come to an agreement to jointly acquire a majority stake in DabaDoc, a digital healthcare platform.

The platform, founded by Zineb Drissi-Kaitouni and Driss Driss-Kaitouni in 2014, digitalises access to healthcare across Africa. Since its establishment, the platform has developed solutions for thousands of healthcare professionals across Morocco, Tunisia, and Algeria, with the long-term goal of expanding continent-wide. Orange and AXA's investment and networking opportunities will help accelerate DabaDoc's growth as well as extend the services to other regions, with an emphasis on the potential of sub-Saharan Africa. The transaction is expected to fully close by the third quarter of 2021.

Orange Middle East and Africa, in joining the acquisition, has confirmed its ambition to take the role of the leading multi-services digital operator across Africa, positioning itself as a key player in e-health with the acquisition of DabaDoc and reliance on AXA's globally recognised healthcare expertise.

AXA Assurance Maroc first invested in DabaDoc in 2018, and is consolidating its partnership once again with the aim of accelerating digitalisation and integration of its customers' healthcare journey. AXA will also aim to facilitate policy holders' interactions with healthcare professionals, utilising DabaDoc's appointment booking and remote consultation infrastructure and network.

Zineb Drissi-Kaitouni, co-founder and CEO of DabaDoc, explained, "DabaDoc, a leading health-tech platform in Africa, is supporting the digital transformation of healthcare professions. Orange's investment in DabaDoc and AXA's renewed investment will strengthen DabaDoc's growth ambitions through Orange and AXA's presence in Africa and the Middle East. The pandemic has strengthened our belief that the digitalisation of healthcare services is essential and inevitable."

With this partnership, DabaDoc will benefit from AXA's experience as one of the worldwide leaders in health insurance and Orange's technological expertise and payment solutions, which should enable digital solutions to rapidly scale and benefit patients as well as the African healthcare ecosystem.

MITSUBISHI SEALS THREE TURBINE LTSAs

Mitsubishi Power, a subsidiary of the Mitsubishi Heavy Industries (MHI) Group, has confirmed three 16-year long-term service agreements (LTSAs).

The agreements cover six M701F gas turbines at the Sidi Krir Power Station, El Atf Power Station and Cairo North GTCC plants in Egypt. The plants operate natural-gas-fired turbine combined cycle generators, with an output of 750MW, and the service agreements will ensure proper maintenance, management, parts supply and repair, and remote monitoring for the turbines, aiding stable and high-availability operation.

Carlos Gonzalez Peton, CEO of Mitsubishi Power Europe, explained, "With the conclusion of this 16-year LTSA, we will be able to continue to provide our customers in Egypt, with optimal responsive services, and by doing so we look forward to further enhancing our ties of friendship."

A ceremony was held at the Sidi Krir Power Station to mark the signing of the LTSA.

WORLD BANK ANTICIPATES MENA REBOUND

Economic activity in the Middle East and North Africa is forecast to advance by 2.4% this year and 3.5% next year, the World Bank has said in its June 2021 Global Economic Prospects.

The region should benefit from the rebound in oil prices, stronger demand, and fewer economic disruptions from Covid-19. As vaccinations rise, mobility restrictions ease, oil production cuts taper, and damage to balance sheets reverse, growth should accelerate further to 3.5% in 2022. The outlook is, however, uncertain.

In oil exporters, higher oil prices will support growth and government revenue recoveries. Oil prices are expected to average US$62 per barrel in 2021/22. Saudi Arabia is forecast to grow 2.4% this year and 3.3% in the next, reflecting positive developments, higher oil prices and tapering oil production cuts, and the start of a new investment programme. Iran is expected to recover to 2.1% in 2021 and 2.2% in 2022 as a rise in industrial production outweighs continued suppressed demand.

The pandemic is expected to continue to impact oil importing economies. In Egypt, growth is forecast to slow to 2.3% in the fiscal year 2020/21, reflecting damage to tourism, manufacturing, and oil and gas extractives, before strengthening again in the fiscal year 2021/22. In Morocco, output is expected to rebound to 4.6% as drought fades, policy remains accommodative, and restrictions ease.

Economies beset by fragility and conflict face mixed prospects. In Libya, the creation of an interim unity government and the lifting of the oil blockade is expected to restore economic activity close to 2019 levels. In Iraq, output is due to expand as oil production rebounds but will not be enough to reverse a rise in poverty rates. In Lebanon, further contraction is expected in 2021.

BRIEFS

MEED provides MENA insights

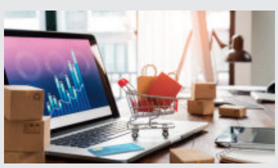
Image Credit: Adobe Stock


Project contracts reached US$15bn annually.

MEED has unveiled its Egypt Projects report for the first half of 2021, highlighting Egypt's role as one of the few MENA project markets that continues to grow. Despite the impact of Covid-19, contract awards at US$15bn were practically flat year-on-year, despite other markets such as UAE and Saudi Arabia seeing a substantial fall in activity. The growth is due to population expansion, gas finds and the country's focus on developing infrastructure.

E-commerce firm raises US$3mn

Image Credit: Adobe Stock


The platform hosts 500 retailers.

B2B e-commerce marketplace, Fatura, has raised US$3mn for expansion.

The Cairo-based platform raised the funds during a pre-Series A, co-led by Sawari Ventures and Arzan Venture Capital. Egypt Ventures, EFG-EV, Cairo Angels, and Khwarizmi Ventures also participated. Founded in 2020, the platform currently hosts more than 500 sellers including wholesalers, distributors and manufacturers who serve 25,000 retailers in 20 governorates across Egypt.

Trella to expand tech capacity after funding round

Trella, one of the fastest growing digital freight marketplaces in the MENAP region, has announced the completion of a US$42mn funding round.

The equity element was led by Maersk Growth, the venture arm of global multinational A.P. Moller – Maersk, Raed Ventures – a Saudi Arabian venture capital firm, and other participating investors such as Algebra Ventures, Vision Ventures, Next Billion Ventures, and more. The funding round comprised of US$30mn equity and US$12mn debt facilities, the latter of which are being provided by Lendable – a next generation lending platform.

Image Credit: Adobe Stock

Trella is committed to reinventing trucking across emerging markets.

Trella is a technology platform committed to reinventing trucking across emerging markets, and has a current market presence in Egypt, Pakistan and Saudi Arabia. It connects shippers directly to carriers, with significant positives for both. The platform solves industry challenges including shippers suffering unreliability, inefficiency via fragmented truck ownership, high price points and low transparency.

Shippers can book directly and access a transparent pricing structure. Shipments can be tracked in real-time, and receive analytics on transportation performance. Improved load utilisation also helps reduce costs. For truck drivers, Trella improves efficiency as freight is moved intelligently, which boosts carriers' earnings and creates job opportunities.

The proceeds will be used by Trella to invest in tech capacity and product development to fuel growth and accelerate the company's journey to reducing the costs of moving goods.

Omar Hagrass, CEO of Trella, said, "This US$42mn funding round is a huge endorsement of Trella's capabilities, business model and market opportunity. We have a strong diversity of investors and we thank all participants for their support. It is great to have Maersk, as a shipper customer that uses Trella, invested in our future growth. The MENAP freight market is a significant one and urgently needs the transparency, reliability and efficiency that Trella and its technology platform provides. We are trusted and used by some of the world's most recognisable brands, and look forward to working with our partners to scale across MENAP."

FIRST TRAINING CENTRE IN EGYPT FOR ROCKWELL AUTOMATION

Rockwell Automation, a leading company dedicated to industrial automation and information technology, has announced the opening of its first ever training centre in Egypt.

Dedicated to supporting the country's high industrial demand, the new learning centre for system integrators and OEMs will enable the full capabilities of Rockwell Automation for its customers and partners in Egypt, which has become an increasingly important base of operations for Rockwell Automation.

Safwat Hakam, country sales director at Rockwell Automation, said, "Our learning centres are designed to ensure that every customer has the necessary training and knowledge to maximise long-term efficiencies from their investment. Egypt is becoming a powerful industrial force with a strong foundation to continue its impressive growth, but its full potential will be realised by embracing digitalisation with the right training in place."

ADVANCING CHINA-MENA TRADE RELATIONS

The China Council for the Promotion of International Trade (CCPIT), in cooperation with the China Chamber of International Commerce (CCOIC), hosted the 2021 China-Middle East & North Africa International Trade Digital Expo between June 15-24, in order to connect buyers, suppliers and entrepreneurs from the MENA region with investment opportunities in China.

It was estimated that more than 1,000 enterprises participated in the exhibition with more than 10,000 overseas visitors participating in B2B meetings. During the event, six sessions were held from selected industries, such as infrastructure and production capacity cooperation, agriculture, home decoration, building materials, textiles, consumer products, and more.

On June 15, the 'Infrastructure and Capacity Cooperation' session was held with representatives from the Future Cities Council of Tunisia, China Mobile International Middle East FZ-LLC, Trade Chamber of Cairo and China-Africa Lekki Investment Ltd, delivering informative keynote speeches.

Bonnie Chen, deputy managing director of China Mobile International Middle East FZ-LLC, announced that China Mobile is actively building the information highway, pop point, IDC and other basic networks around the world to provide global customers with large-scale and high-quality connectivity. The company has built and invested more than 70 land and sea cables with a transmission bandwidth of more than 90T.

Lai Siqing, director of Nigeria Lekki Free Zone and the deputy managing director of China-Africa Lekki Investment Ltd introduced the construction and development of the Free Zone, the progress of special preferential policies and investment promotion. Siqing welcomed Chinese enterprises to join in the Free Zone.

BRIEFS

First concrete at Tripoli West 671 MW SCPP

Image Credit: Adobe Stock

The turbines of the plants will be fired with light fuel oil and natural gas.

ENKA, a global engineering and construction firm, has announced that the first structural concrete has been poured at Tripoli West 671 MW Simple Cycle Power Plant project in Libya. In 2017, ENKA in consortium with Siemens signed the contract for the construction of the project including supply and installation of gas turbine units. This was signed with the General Electricity Company of Libya (GECOL) to meet the growing electricity demand of Libya.

Emmerson advances Khemisset Potash Project

Image Credit: Adobe Stock

Emmerson is on course to start construction by the end of 2021.

Emmerson, a potash development company, has announced significant progress at its Khemisset Potash Project in Morocco. The company provided several updates including that the environmental approval process has been completed and awaiting final decision, further geological work has been completed, a tender process for technical field works has commenced, and that the indicated power cost savings has been confirmed.

LHWP Phase II to reinforce water security in South Africa

Image Credit: Adobe Stock

Phase II of the LHWP includes the construction of the Polihali Dam in Mokhotlong district.

The Trans-Caledon Tunnel Authority (TCTA) and the Development Bank of Southern Africa (DBSA) have concluded two loan facility agreements spanning 20 years, for the implementation of Phase II of the Lesotho Highlands Water Project (LHWP), which forms part of South Africa's Vaal River System.

The investment comprises R3bn and R2.5bn loans (totalling approximately US$386mn) and was negotiated alongside other facility agreements with the five major banks in South Africa for a total of over R15bn (approximately US$1bn). The DBSA's funding will be used for new infrastructure development, ensuring water security in South Africa.

This transaction strengthens ongoing cooperation between the two parties and furthers their mutual water infrastructure mandates. It will increase the DBSA's loan book exposure in water and sanitation and enable TCTA to fulfill its flagship role as a bulk water infrastructure implementing and national funding agency of the South African government.

Over the next five years, as part of the LHWP Phase II, key milestones will be achieved including the construction of the Polihali Dam in Mokhotlong district (which has a capacity to hold 2.2 billion cubic metres of water and a 38km water transfer tunnel connecting the Polihali Dam to the Katse Dam (which was part of Phase I of the LHWP).

Zodwa Mbele, DBSA group executive, commented, "This is a significant transaction and as the DBSA, we are proud to be instrumental in the continued implementation of this historical and highly developmental project for both South Africa and Lesotho. The anticipated economic shift speaks to significant combined GDP impact of about R245bn in the two countries, additional water supply to support about 60% of the South African economy and incremental royalties to the Kingdom of Lesotho, which are key to its fiscus and national economy. This positive impact is timely to re-ignite an infrastructure-led economic recovery."

TLOU ENERGY DEVELOPS HYDROGEN STRATEGY

Tlou Energy is developing a hydrogen strategy to complement its Lesedi gas-to-power project in Serowe, Botswana.

The southern Africa-focused exploration and development company said it is well-positioned to produce hydrogen from different methods and has proven resources to do this such as methane for carbon and hydrogen, readily available water for hydrogen and oxygen, and solar power to drive the process.

In addition, the company said it is in ongoing discussions with a number of parties in relation to a US$10mn project finance package for the initial phase of the Lesedi project which includes the construction of transmission lines and sub-stations.

Once a project finance package is in place and it is commercially prudent, work on the transmission lines and sub-station can be conducted, Tlou concluded.

OPERA LAUNCHES HYPE IN SOUTH AFRICA

Opera has announced the launch of its dedicated chat service Hype, built into the Opera Mini mobile web browser, in South Africa, Zambia and Ghana. With the introduction of Hype, Opera is redefining the concept of mobile browsers, providing users with a personalised, engaging browsing experience that enables seamless chatting, surfing and sharing – without compromising speed or driving increased data consumption.

Hype is the first African-inspired chat service built into a mobile browser, allowing users to easily set up an account and start chatting with secure end-to-end encryption right away. This means users can now browse the web, chat with friends, and share self-created memes, stickers and GIFs with other Hype users, all in one app.

Hype was built because younger generations of internet users are expecting more social connectivity from the apps they use on their devices.

With this integration, Opera Mini becomes the first major browser in the world to integrate a social component that keeps users connected to the ones that matter the most. This unique and innovative blend is something that no other mobile browser in the Google Play Store offers.

"Hype is an original instant messaging service from Opera, designed for the new generation of African internet users to elevate the traditional browsing experience and make it more engaging. With Opera Mini and a Hype account, Africans can enjoy a browsing and chatting ecosystem tailored to their needs," said Jørgen Arnesen, executive vice-president Mobile Browsers at Opera.

Hype was first launched in 2021 in Kenya as a pilot market, and it is already showing impressive results with more than 400,000 activations and more than 10,000 invites to join Hype per day.

BRIEFS

Ncondezi Energy signs Mozambique solar pact

Image Credit: Adobe Stock

The pipeline included a diversified portfolio of six potential projects in Mozambique.

Africa-focused Ncondezi Energy has signed a binding relationship agreement with Captive Power for the development of solar and battery storage projects in Mozambique. Under the agreement, Ncondezi has the right, but not the obligation, to fund a pipeline of projects in the African nation. The pipeline included a diversified portfolio of six potential projects in Mozambique with a combined potential installed solar capacity of 2.8MWp and 6.2MWh of battery storage.

Scatec wins solar plant tender in South Africa

Image Credit: Adobe Stock

The three projects consist of 540 MW solar and 225 MW/1,140 MWh battery storage.

Norway based renewable energy developer Scatec has won preferred bidder status for 540MW of solar projects alongside 225MW / 1,140MWh of battery storage in South Africa.

"We are demonstrating that cost competitive dispatchable solar power can be delivered at large scale with short implementation time. This confirms that renewable energy is an ideal choice for driving electricity generation growth in Africa and other developing countries," said CEO Raymond Carlsen.

Zimbabwe's economy is set for recovery, but key risks remain: World Bank

Zimbabwe will need to rely mostly on reallocating domestic resources to optimal public uses and leveraging private financing and humanitarian support where possible.

After a two-year recession, GDP growth in Zimbabwe is projected to reach 3.9% in 2021, according to the World Bank's Zimbabwe Economic Update (ZEU).

Economic growth this year will be led by the recovery of agriculture as rains normalise, businesses adjust to limitations caused by the Covid-19 pandemic, and inflation slows down. However, disruptions caused by the pandemic will continue to weigh on economic activity in Zimbabwe, limiting employment growth and improvements in living standards.

The ZEU, 'Overcoming Economic challenges, Natural Disasters, and the Pandemic: Social and Economic Impacts', provides the World Bank's perspective on macroeconomic and poverty developments and explores ways to strengthen public service delivery in key sectors. This is the third economic update for Zimbabwe by the World Bank.

The ZEU notes that economic recovery is expected to strengthen further in 2022 with GDP growing at 5.1% as the deployment of vaccines intensifies and implementation of National Development Strategy 1 (2021-2025) bears fruits. Overall, the Covid-19 global contagion continues to pose significant downside risks, and thus the global and local outlook remains uncertain. A prolonged pandemic, weaker global demand, and heightened macroeconomic instability could choke economic growth, increase poverty, and worsen human capital development outcomes.

Mitigating these risks requires domestic policies to strengthen and sustain macroeconomic stability – which is critical for consolidating economic recovery. Recent efforts to stabilise prices through rule-based monetary and exchange rate policies have been effective and must be continued and expanded. Fiscal policies supportive of these efforts have thus focused on avoiding monetary financing and quasi-fiscal activities, reducing distortive subsidies, and improving fiscal and debt transparency.

"Preserving lives during this unprecedented pandemic in this challenging economic environment will require a strategic approach to addressing underlying problems in the health sector," said Stella Ilieva, World Bank senior economist and lead author of the economic update. "Such a strategy needs to recognise and simultaneously attend to the Covid-19 and non-Covid-19 health burden in coordinating and allocating sector resources."

Facing tight public finances and limited recourse to external financing, Zimbabwe will need to rely mostly on reallocating domestic resources to optimal public uses and leveraging private financing and humanitarian support where possible. Addressing underlying challenges in health, education, social protection, and food security will require sustained financing, strengthened accountability frameworks and investments in appropriate management information systems.

The ZEU reviews developments in 2019 and 2020, and emerging trends in 2021. Part one of the ZEU provides an overview of the macroeconomic and poverty context. Part two assesses the impact of Covid-19 and other exogenous shocks on delivery of basic services to the poor and proposes mitigating actions for discussion. It also summarises key policy options needed to stabilise Zimbabwe's economy, minimise the social costs of the transition, and prepare for an economic recovery.

ACCELERATING SOUTH AFRICA'S ENERGY TRANSITION

As South Africa is addressing climate change as an urgent priority with strong commitments on policy and regulation, General Electric (GE) has shared its position that the accelerated and strategic deployment of renewable energy and gas power can make substantial progress in combating climate change in the near-term, while securing a path to a lower carbon-emitting world in the future.

In the newly published position paper, titled: 'Accelerating South Africa's energy transition with gas power and renewables', GE said neither power source will be sufficient alone, but when deployed in tandem can provide decarbonisation at the pace and scale needed to achieve substantial climate goals.

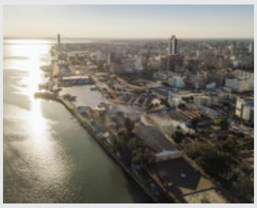
"A combination of renewables and gas power will be the fastest and most cost-effective pathway to decarbonisation for South Africa," said Elisee Sezan, CEO for GE's Gas Power business in sub-Saharan Africa. "Reliable gas technology solutions and renewable energy sources will make investments economically sound for immediate emission reductions and we believe that gas will not just be a back-up fuel but will be the new baseload capacity for the coal repurposing national programme."

According to the whitepaper, affordable, reliable, and sustainable electricity is South Africa's most urgent need. About 4-6GW of power is needed in the near term to ease current electricity constraints and the country aims to add about 20GW of additional power with renewables and gas in the long term.

Research shows South Africa's energy mix will evolve to include greater amounts of renewables, even as coal remains the dominant fuel beyond 2040.

BRIEFS

AfDB to boost job creation in Mozambique



The grant will provide technical and institutional assistance for start-ups and SMEs.

The African Development Bank (AfDB) Group has approved a US$1mn grant to the Instituto para a Promoço das Pequenas e Médias Empresas (Ipeme) in Mozambique to boost local content and the development of SME initiatives. The Youth Entrepreneurship and Innovation Multi-Donor Trust Fund grant will provide technical and institutional assistance, as well as direct support for start-ups and SMEs, with a special emphasis on youth-led and women-owned businesses.

Botswana begins drone initiative for healthcare

The drone has completed several successful test flights.

Botswana has piloted the use of drone technology for healthcare delivery. The Drones for Health pilot project aims to reduce preventable maternal deaths by delivering maternal health supplies and commodities – including essential obstetric care drugs, blood, blood products and laboratory specimens – particularly in hard-to-reach communities and health facilities. Each battery-powered drone has a delivery distance of 100km and can carry cargo with a weight of up to 2kg at a time.

Nissan's Ghana engineers graduate from training programme in South Africa

Ghanaian technicians graduated from Nissan's plant in South Africa, ready to spearhead the launch of an assembly plant in their own country.

The comprehensive training programme equipped the trainees with the ability to assemble the new Nissan Navara and learn the principles of the Nissan Production Way. This is to ensure that the numerous quality control measures are enforced and allow the technicians to help train the next generation of engineers to assemble these vehicles in their home country.

The comprehensive training programme equipped the trainees with the ability to assemble the Nissan Navara.

"The production of a vehicle is intricate, so the training course we have been offering will not be the end of our work in supporting the Ghanaian team's capabilities," said Shafick Solomons, plant director.

"It is one of the many steps we are taking to support a sustainable relationship between South Africa and Ghana going forward. We will continue to share resources and knowledge, as well as training to make sure that the Ghanaian team is as agile and efficient as any team in the rest of the world, all working towards and adhering to Nissan's global production standard, the Nissan Production Way."

"This is a wonderful moment for us as a global company with incredible African roots," said Mike Whitfield, managing director of Nissan. "We set out to build a vehicle in Africa for Africa by Africans with the Navara, which we are about to achieve from our Nissan South African plant.

"Now we are laying the groundwork to do just that in Ghana, as we help the people and government of Ghana begin to realise their dream of creating a sustainable automotive industry in their country.

"We were the first movers in Nigeria and we are looking at other countries in Africa where there is similar potential, which is timely as we emerge from the economic ravages of the Covid-19 pandemic."

The Navara production facility is in Accra and will be run by a 100% Ghanaian workforce and operated by the Japan Motors Trading Company (JMTC), which invested US$3mn into its construction, following Ghana's drafting of its automotive development policy to encourage investment in the sector.

DOW, EMPOWER AND NORAD LAUNCH ECO STUDY

Dow, a leader in materials science, and Empower, a Norwegian circular platform company, which uses blockchain technology to track plastics waste, have announced a new study to examine the feasibility of advancing fully circular value chains in Nigeria, to help close the loop on plastics waste.

The study, part funded by the Norwegian Agency for Development Cooperation, will focus on the implementation of a scalable digital waste collection and recycling business model in Lagos, Nigeria. The findings will help digitise the local collection points, recyclers and waste streams, to ensure reliability of tracking recyclable plastics waste and converting it into sustainable packaging.

Adwoa Coleman, Africa sustainability and advocacy manager at Dow said, "Achieving full circularity for plastics takes each part of the value chain working as a collective, and research, such as this new study, which helps us to assess the traceability of plastics waste is invaluable in helping us to advance our efforts."

AFDB SUPPORTS GHANA'S CAPITAL MARKETS

The African Development Bank Group (AfDB) and the Securities and Exchange Commission (SEC) of Ghana have launched a US$400,000 project to strengthen the development of Ghanaian capital markets.

The grant, from the AfDB's Capital Markets Development Trust Fund, will finance the provision of technical assistance and capacity building for the SEC, the markets regulator, and the Ghana Stock Exchange.

The project will enhance the SEC's institutional capacity and readiness to transition from a compliance-based to a risk-based supervision approach for the securities market. It will also enable the development and streamlining of policy and regulatory frameworks for pooled funds, and support the broadening of market instruments through the introduction of products, such as asset-backed securities.

At the launch event, Daniel Ogbarmey Tetteh, director-general of the SEC, commended the AfDB for supporting the development of a risk-based solution, which is expected to bolster the commission's capacity to fulfill its mandate.

The objectives of the project align with the priorities of the bank's Country Strategy for Ghana, which envisages measures to stimulate capital market development and unlock financial resources that will advance Ghana's industrialisation, the private sector and infrastructure development.

"This support demonstrates the bank's desire for a deepened and broadened financial system – a driver of investment and economic growth in Ghana," said Ahmed Attout, manager of the bank's capital markets development division.

The project will benefit capital market participants in Ghana, including securities issuers and investors. It will also help broaden available products and structures for savings and investment.

BRIEFS

Senegal's new economic policy outlined in Canada

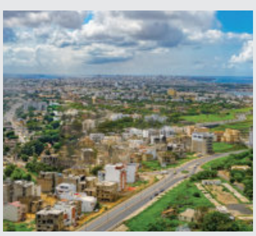


Image Credit: Adobe Stock

Senegal's economic growth has been among the highest in Africa.

The Republic of Senegal presented its new economic policy during the first forum of the Canada-Africa Chamber of Business last month. "It is a great privilege to welcome a nation that Canada regards as a reference for democratic governance and sustainable economic development," said Sebastian Spio-Garbrah, chair of the board. "Senegal's growth averaging 6% for much of the past decade is reflection of unparalleled opportunities in this market."

May's consumer price inflation slows in Ghana

Image Credit: Adobe Stock

Declining food inflation played the greatest role in reducing overall inflation rate.

Ghana's consumer price inflation was at 7.5% year-on-year in May, down from 8.5% in the previous month, due to an ongoing dip in food inflation, according to the nation's statistics service, reported CNBC Africa. The drop puts the rate within the Bank of Ghana's targeted band of 8% plus or minus 2% points for the second month in a row. Declining food inflation helped reduce the overall inflation rate.

Sudan

Sudan is located in East Central Africa. It is bordered by Egypt to the north, the Red Sea to the northeast, Eritrea and Ethiopia to the east, South Sudan to the south, the Central African Republic to the southwest, Chad to the west, and Libya to the northest. Sudan is the third largest country in Africa, after Algeria and DR Congo. Sudan's total land area amounts to some 1,886,068km², with 18,630km² of irrigated land.

After agriculture, oil is Sudan's major natural resource. The country also has significant deposits of chromium ore, copper, iron ore, mica, silver, gold, tungsten, and zinc.

Mining Operations in Sudan

Operating and running a mining site with high efficiency is a very challenging job, especially in a country as vast as Sudan. Operators face many obstacles and difficulties, which may well hamper or even totally eliminate your efficacy and effectiveness.

Poor infrastructure is one of the key challenges facing the mining industry in Sudan. The state of the country's transport infrastructure creates an impediment which contributes to inefficient logistical operations by raising cost and creating delays. There are many other factors which also play a role in creating challenges in running an efficient mining site; such as ensuring uptime, providing spare parts for machines, providing fuel for your fleet, providing skilled operators, and managing these cost effectively.

We at DAL Mining ensure customized mining services solutions; from a specific scope of work to a complete turn-key mining operation. DAL Mining has the knowledge, experience, people, and equipment to build an all-needed mine-site infrastructure, as well as the ability to provide a full production mining service. These services enable mine owners to optimize their resources, control and lower their costs, and execute projects more efficiently.

Today, the DAL Mining expert team not only delivers sustainable cost savings for your business, but also provides a wide range of services to help achieve maximum cost efficiency.

Hani Girgis
Sales & Business Development Manager
DAL Mining

DAL GROUP
ENGINEERING DIVISION

Rwanda to harness the power of big data

The signing of the MoU will kick-start Rwanda's three year digital programme.

Image Credit: Rwandan Ministry of ICT and Innovation (Elysee Tuyishime)

The Ministry of ICT and Innovation in Rwanda, Cenfri, and the Mastercard Foundation have signed a tripartite Memorandum of Understanding, (MoU) to kick-off an ambitious three-year digital transformation programme in Rwanda to enhance the government's digital capabilities and systems.

The government of Rwanda has charted an ambitious course for achieving rapid digital transformation and has embraced the digital economy as a lever for accelerating growth, improving services delivery, and enabling more work opportunities for Rwandans.

The Covid-19 pandemic has fast-tracked the need for digitisation and this partnership demonstrates Rwanda's goal to not only keep up with the global trends, but also to become an example of digital leapfrogging in Africa.

"Data-driven policymaking is fundamental to our digital transformation journey," said Paula Ingabire, the Minister of ICT and Innovation, and the government lead for the program. "During the pandemic, we've seen digital payments grow more than tenfold and it's these gains that we want to build on and unlock further growth and adoption of digital payments."

Rica Rwigamba, country head at the Mastercard Foundation, added, "Unlocking significant, long-lasting efficiencies in financial inclusion and productivity for young men and women will help to increase their access to employment opportunities and entrepreneurship. It is important that we support the sustainability of that transition as well as other innovative interventions in the digital space."

The programme, which will be implemented by Cenfri in partnership with Cape Town-based data science firm 71point4, is composed of a team of people who have worked with Rwandan agencies for the past few years to open up data for the government to draw insights for policy.

The programme will support the government to realise its vision through a three-pronged approach: making data and trend analysis easily accessible; supporting the application of data to policy actions; and accompanying public sector staff to utilise data-driven approaches. The data will also be available to local entrepreneurs and start-ups to develop ideas and strategies for new businesses.

VODAFONE ALLIANCE TO BUILD NETWORK IN ETHIOPIA

As reported in Africa Briefing, Abiy Ahmed, Prime Minister of Ethiopia as indicated that Vodafone will spend US$8bn on building its new network in Ethiopia.

It has been reported that Vodafone group paid US$850mn for the licence, beating the US$600mn offered by MTN of South Africa. It will now compete with Ethio Telecom to offer services to Ethiopia's 112 million people, only 40% of whom currently have mobile phones.

Ahmed said, "The Council of Ministers has unanimously made a historic decision today allowing Ethiopian Communications Authority to grant a new nationwide telecom license to the Global Partnership for Ethiopia, which offered the highest licensing fee and a very solid investment case."

The Global Partnership for Ethiopia includes Vodafone and two sister companies Safaricom, in Kenya, and Vodacom, based in South Africa, as well as Sumitomo of Japan.

RENEWVIA TO ELECTRIFY COMMUNITIES IN KENYA

Social Investment Managers and Advisors LLC (SIMA), an investment manager, and Renewvia Energy Corporation, a global solar developer, have announced a partnership to electrify rural communities in Kenya.

The SIMA Off Grid Solar and Financial Access Senior Debt Fund I has committed US$1mn to enable Renewvia to expand energy access on the islands of Ringiti and Ndeda, where it currently owns and operates two solar mini-grids, and to contribute to the development of new solar mini-grids in five communities in Turkana County.

Renewvia will develop and operate solar mini-grids in the communities of Lomekwi, Nakukulas, Locheremoit, Kagintan, Kori, and Lorengelup by the end of 2021. These mini-grids will provide clean, reliable and affordable energy to more than 7,500 individuals and multiple small- and medium-businesses, laying the foundation for improved livelihoods and economic growth.

On the islands of Ringiti and Ndeda, located in Lake Victoria, financing from SIMA will help expand energy access to an additional 2,200 individuals and small businesses where Renewvia has been providing reliable, affordable and clean energy for the last two years. Renewvia plans to complete this work by June, ultimately reaching a total of 5,000 people and small businesses on the islands.

Asad Mahmood, CEO and managing partner at SIMA, commented, "SIMA is committed to investing in the African off-grid solar sector and bringing solar solutions to communities in order to enable economic growth, reduce carbon emissions and improve environmental sustainability. Renewvia has a track record of successfully delivering reliable, clean power to several communities in Kenya, and we look forward to working with them on these projects and beyond."

BRIEFS

Image Credit: Adobe Stock

The start-up of the tailings re-processing operations was initiated in May.

EAM eyes gold in Tanzania

East Africa Metals (EAM) has announced that it has formed a metals trading company to facilitate the acquisition and commercial sales of its share of the gold produced from the Magambazi mine. This will allow it to receive the benefits of the Magambazi Transaction with PMM Mining Company (PMM) which stipulates that PMM will sell 30% of gold produced to EAM, and will produce 10,000 ounces in the first year of operations, rising to 40,000 by year four.

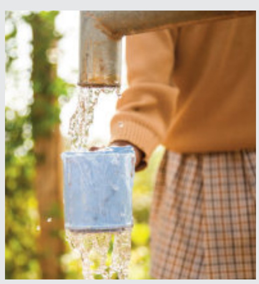


Image Credit: Adobe Stock

The partnership took effect on June 5, 2021.

Alliance to treat water in Kenya

Amitruck, a digital logistics marketplace, has shifted its focus to waste management by forming an alliance with Sanergy, a social venture that cleans up cities by collecting and transforming harmful organic waste streams into safe goods. The innovators will join forces to exploit their end-to-end value chain network of operations and efficient logistics to collect, treat, and convert two streams of waste: sanitation waste and kitchen and agricultural waste.

KenGen begins drilling first geothermal well in Ethiopia

Kenya Electricity Generating Company PLC (KenGen) has started drilling the first geothermal well for Ethiopia Electric Power (EEP) company.

Rebecca Miano, managing director and CEO of KenGen, said, "The exercise started on Saturday, May 29, 2021, whereby the first hole section was drilled to 29m within eight hours. So far, drilling operations are running smoothly as the team moves to the next hole section. Drilling a single well takes about two months to complete. However we hope to shorten this period despite the prevailing circumstances brought about by Covid-19."

Image Credit: KenGen

KenGen team of engineers drilling the first geothermal well for EEP in Ethiopia, setting in motion Phase II of the Ksh7.6bn contract.

Miano added that KenGen would mobilise a specialised drilling services crew including aerated drillers, directional drillers, and reservoir engineers to ensure the project was a success.

Speaking during the official signing ceremony, former EEP CEO, Abraham Belay, said they were optimistic KenGen would be able to drill the projected number of wells.

"What is more exciting is the fact that KenGen is also building the capacity of our people and eventually, we will also be able to manage geothermal equipment and run the power plants after the company exits the sites," Belay noted.

He revealed that Ethiopia's quest for geothermal energy spans over four decades as the country had tried to venture into geothermal development as far back as 1981. With KenGen's entry into the country, Ethiopia is now staring at a geothermal generation breakthrough.

This move by KenGen to commence Phase II of the project follows completion of Phase I of the contract by the consortium partners, under which two rigs were delivered to the Aluto site in Ethiopia. Phase I entailed the purchase of drilling rigs while Phase II will entail the provision of drilling services. KenGen is supplying about 30% of the component of Phase II which translates to about US$6.2mn.

Under this project, which is being financed by the World Bank, a total of eight wells will be drilled using two rigs. Each rig is expected to drill four wells within a period of one year. Depending on the outcome of Lot 1 wells, 12 more wells may be drilled under Lot 2, bringing the total to 20 wells.

ELECTRICITY ACCESS TO INCREASE IN RWANDA

The Board of Directors of the African Development Bank Group has approved US$84.22mn in loans and grants to electrify nearly 80,000 rural households in south Rwanda. The project will advance the country's goal of universal electrification and benefit small businesses and youth.

The Transmission System Reinforcement and Last Mile Connectivity project will provide first time electricity connection to 77,470 households to the grid, entailing the construction of 595km of medium voltage distribution lines and 1,620km of low voltage distribution networks in six southern Rwanda districts. The project will also see the upgrade, rehabilitation and extension of 1,720km of low voltage network, and distribution of transformers in secondary cities with high load.

The project is part of the Rwanda Universal Energy Access Program (RUEAP), which seeks to achieve universal access to electricity by 2024, and the country's long-term development framework, Vision 2050.

UGANDA TO EXPAND DIGITAL INFRASTRUCTURE

The World Bank has approved US$200mn in financing to expand access to high-speed and affordable internet, improve efficiency of digitally enabled public service delivery, and strengthen digital inclusion in Uganda.

The new Uganda Digital Acceleration Project-GovNet will support a 1,000km extension of the national backbone fibre infrastructure, 500km of fibre optic network links between towns, mobile broadband connections for 900 government administrative units and service centres in underserved areas, and 828 Wi-Fi hotspots in select locations to support access to online services among rural and peri-urban, underserved and unserved communities.

"Transforming Uganda's digital infrastructure is an urgent necessity for post-Covid-19 recovery," said Tony Thompson, World Bank country manager for Uganda. "We look forward to the time when all citizens can access high-quality and low-cost internet, public services online, a digital economy driving growth, innovation and job creation."

The programme will help to develop shared platforms for ministries, departments, and agencies to deliver digitally enabled public services to citizens and businesses throughout the country. These digital platforms will create the foundations for better resilience and economic recovery by boosting the effectiveness of government e-services that can be delivered remotely, in a paperless and cashless manner, reducing the need to travel for government services.

The expanded connectivity will also strengthen the digital inclusion of host communities and refugees by improving the availability of digital infrastructure and tackling demand-side factors like digital skills, affordability of internet connectivity, and accessibility of digital services.

BRIEFS

Tanzania takes control of its skies

Image Credit: Adobe Stock

Various services offered by TCAA are now available online.

Tanzania Civil Aviation Authority (TCAA) has begun issuing online permits for foreign aircraft using Tanzanian airspace, which will reduce the time to obtain a permit from 48 hours to less than two and lower the chances of discrepancy by blocking invalid credentials from the system. Hamza Johari, director general of TCAA, said, "This system will also help TCAA to monitor its income as well as reduce bureaucracy, since airspace is money."

Bolt introduces electric vehicles in Kenya

Image Credit: Bolt

Bolt Food couriers display the e-bikes introduced in Kenya.

Bolt, a leading on-demand transportation platform in Africa, has introduced electric tuk tuks and e-bicycles on its platform as the company expands its greener transport in Kenya in the food category. The initiative is geared towards reducing Bolt's environmental footprint.

It also serves to eliminate the challenges associated with constant fluctuating fuel prices, which currently form the most significant operating cost for drivers and couriers.

Upcoming Events Calendar 2021

JULY

24 June - 01

POWERING AFRICA SUMMIT
Virtual
www.poweringafrica-summit.com

AUGUST

23-27

IEEE POWER AFRICA 2021
Virtual
https://ieee-powerafrica.org/

24-25

POWER & ELECTRICITY WORLD AFRICA
Virtual
https://www.terrapinn.com/exhibition/power-electricity-world-africa/index.stm

SEPTEMBER

7-8

2ND ANNUAL AFRICA SOLAR ENERGY FORUM
Virtual
www.leadventgrp.com/events/2nd-annual-africa-solar-energy-forum/details

14-16

PROPAK WEST AFRICA
Lagos, Nigeria
www.propakwestafrica.com

14-16

AFRICA ENERGY FORUM
Barcelona, Spain
www.africa-energy-forum.com

21-23

NIGERIA ENERGY
Lagos, Nigeria
www.nigeria-energy.com/en/home.html

28-30

6TH SOLAR AFRICA 2021
Dar es Salaam, Tanzania
www.expogr.com/tanzania/solarexpo/index.php

OCTOBER

26-29

ECOMONDO
Rimini, Italy
https://en.ecomondo.com/

NOVEMBER

3-5

THE BIG 5 CONSTRUCT KENYA
Nairobi, Kenya
www.thebig5constructkenya.com

8-11

AFRICA OIL WEEK
Dubai, UAE
https://africa-oilweek.com/Home

Africa Oil Week will be held in Dubai, not Cape Town, this year

Africa Oil Week 2019 on their plenary stage.

Image Credit: Hyve Group

Africa Oil Week (AOW), part of Hyve Group, has announced that the 2021 edition of the event will be held in Dubai, on 8-11 November.

After careful evaluation of government guidelines and consultation with customers, the organisers have made the decision to move dates and location of AOW 2021, originally scheduled from 1-5 November in Cape Town, so that the event will now take place at the Madinat Jumeirah resort.

Simon Ford, portfolio director of Africa Oil Week and Investing in African Mining Indaba, said, "Delivering the event to the high standard to which our audience is accustomed and ensuring the safety and well-being of our attendees has always been our top priority. We believe that hosting the 2021 edition in Dubai will enable us to ensure that the event experience is both safe and premium for our customers."

He added, "Though we are very disappointed not to be able to host our event in Cape Town this year, we believe that Dubai is the next best location. The country has demonstrated exceptional progress in its vaccination programme and has also led the way in safely reopening international events having played host to large-scale, highly-successful events recently that attracted business travellers from more than 150 countries, increasing business confidence and accelerating the revival of all major sectors in the country. As such, in order to allow our customers ample time to make travel arrangements, we have made the decision to move dates and location – we are confident that Dubai will be a safe and highly desirable destination to host AOW's 27th edition."

The organisers have vowed that despite the location change, AOW will continue to be the must-attend event with Africa at its core, a platform dedicated to fostering relationships and driving transactions across the African Upstream. AOW has confirmed the support from key customers regarding the decision to host the event in Dubai in 2021, including Total, Chevron, Tullow Oil, Eni, PGS and Fugro.

Clay Neff, president, Chevron Middle East, Africa, South America Exploration and Production Company said,"Chevron is committed to the African continent, where we have operated for more than a century. We are pleased to sponsor AOW and look forward to this annual gathering."

They have also confirmed the participation of the leading ministers of Energy and regulatory bodies from across Africa for the 27th edition, confirming AOW's position as the event shaping the future of Africa.

For more information contact abbie.coonan@hyve.group

"Our exciting partnership with the Cherie Blair Foundation for Women and DHL will surely take us to new heights in the women's economic advancement and empowerment space in South Africa. The HerVenture app's new launch creates a great opportunity for women entrepreneurs of small and growing businesses to tap into and further expand their entrepreneurial skills and mindset, enabling them to start and scale their businesses in a sustainable manner. We are very thrilled about this new collaboration, and eager to witness the new app's lasting positive impact on women entrepreneurs."

IRENE OCHEM

Founder and CEO of Africa Women Innovation & Entrepreneurship Forum (AWIEF)

"Action to tackle climate change is a global imperative. Our best chance of success is through strong partnerships with dedicated organisations. We believe that innovative technologies are the key to combating climate change. The energy transition is a considerable challenge which requires great change, but offers significant potential."

CHRISTIAN BRUCH

CEO of Siemens Energy

"The collaborative partnership that has been recently signed with Webb Fontaine represents an ambitious, progressive and fundamental step forward for the government of Niger and the country's entire trade and customs industry. The benefits that are expected from the implementation of this project are numerous for both the public and private sectors, with many of the key actors involved in the import-export chain expected to reap the rewards on a national and international level."

OUSMANE MAHAMANE

General secretary of the Chamber of Commerce and Industries of Niger, on Webb Fontaine's 10-year contract to develop Niger's trade and customs capabilities

"MVXchange as an organisation fixes critical supply chain frictions in the African trade and energy industries. We are growing and seeking to deliver more to Africa. However, our former brand identity did not mirror the nature and ambitions of the products and services we want to bring to the market. That is why we are simplifying our identity and rebranding to Merchant Venture Xpress or MVX."

TONYE MEMBERE-OTAJI

Founder and CEO of MVX

"We've positioned ourselves as the 'go to' partner for global big-tech players seeking entry into the African market in order to effectively reach African consumers. We do not compromise on data governance, customer success or product quality, which is why we boast of having top tier brands as clients and partners spread across FSI, FMCG, e-commerce and telco brands."

ELO UMEH

CEO of Terragon

"The PPA signing is a key milestone for the Khoumagueli Solar project which will deliver reliable, affordable power to Guinea's homes and businesses. During these uncertain times, it is admirable that the teams involved have continued their work to achieve the signing of this important agreement. The signing demonstrates the ongoing commitment of Electricité de Guinée (EDG) and the government of Guinea to developing the country's clean energy sector."

GILLES VAES

CEO of InfraCo Africa on the PPA between Electricité de Guinée (EDG) and InfraCo Africa

AFRICAN REVIEW / ON THE WEB

A selection of product innovations and recent service developments for African business
Full information can be found on www.africanreview.com

TCTA & DBSA CLOSE US$405MN DEAL FOR LESOTHO HIGHLANDS WATER PROJECT

Image credit: Adobe Stock

TCTA & DBSA close US$405mn deal for Vaal River System's Lesotho Highlands Water Project Phase II.

Trans-Caledon Tunnel Authority (TCTA) and the Development Bank of Southern Africa (DBSA) have announced their two loan facility agreements of US$405mn for the implementation of Phase II of the Lesotho Highlands Water Project (LHWP).

The DBSA's funding will be used for a new infrastructure development, ensuring water security in South Africa.

This transaction strengthens ongoing co-operation between the two parties and furthers their mutual water infrastructure mandates. It will significantly increase the DBSA's loan book exposure in water and sanitation, one of the bank's key focus sectors.

Zodwa Mbele, group executive of DBSA, said, "This is a significant transaction and as the DBSA, we are proud to be instrumental in the continued implementation of this historical and highly developmental project for South Africa and Lesotho. The anticipated economic shift speaks to significant combined GDP impact of about US$18bn in the two countries, additional water supply to support about 60% of the South African economy and incremental royalties to the Kingdom of Lesotho, which are the key to its fiscus and national economy. This positive impact is timely to reignite infrastructure led economic recovery."

"The projected social impact includes the provision of additional water to about 45% of the South African population across multiple provinces, including Gauteng, Free State, North West, Northern Cape and Mpumalanga. Substantial direct and indirect job opportunities of approximately 545,000 are expected from this continued project development in both Lesotho and South Africa," concluded Mbele.

FAYMONVILLE COMBIMAX ENABLES HISTORIC MOVE IN MOZAMBIQUE

Image Credit: Faymonville

Modular CombiMAX opens new possibilities for Lalgy.

Maritime engineering plays a key role in the worldwide heavy lift business. For an offshore project in the south of Africa, CombiMAX modular trailer combinations take on an important function for the supply of material weighing tons.

Large components for a gas project have started to arrive in Mozambique and are being partly stored in Maputo in the south of the country. Around 12km of chains and more than 60 cable reels have arrived by sea. While the reels with a height of more than five metres tip the scales at 65 tons, the individual chains and their steel baskets can weigh up to 150 tons.

For their transport from the port to a storage site, the team from Transportes Lalgy deploys a total of 18 axle lines of Faymonville CombiMAX, configured into two trailers of eight and 10 axles with gooseneck each.

Faymonville general director Aly Lalgy said, "The quality and reliability of the Faymonville trailers as well as the thorough training are a decisive factor for the successful execution of this and many other projects in Maputo."

MOROCCO AND IRENA TO BOOST RENEWABLES AND GREEN HYDROGEN DEVELOPMENT

Image Credit: RENA

IRENA and the MEME Morocco will work together to develop technology and market outlook studies.

The International Renewable Energy Agency (IRENA) and the Ministry of Energy, Mines and Environment (MEME) of Morocco have agreed to strengthen joint collaboration to advance knowledge in renewable energy and to accelerate the energy transition.

Specifically, IRENA and Morocco will work closely to advance the national green hydrogen economy as the country aims to become a major green hydrogen producer and exporter.

Under the strategic agreement signed by IRENA director-general Francesco La Camera, and Morocco's Minister of Energy, Mines and the Environment, Aziz Rabbah, the two parties will actively pursue green hydrogen studies and jointly explore policy instruments to engage the private sector at a national level in the green hydrogen economy.

"The Kingdom of Morocco has shown great leadership in advancing the deployment of renewable energy to meet growing energy demand while creating new industrial opportunities across the country," said La Camera.

Morocco's Minister of Energy Aziz Rabbah commented, "Morocco has played an important role in global renewable energy cooperation through IRENA since the agency's formation, and we will continue to promote and encourage the uptake of renewables in the context of climate change and sustainable development at a regional and an international level."

IRENA and the MEME Morocco will work together to develop technology and market outlook studies, craft public-private models of co-operation in the hydrogen space, explore the development of new hydrogen value chains and lay the groundwork for the trading of green hydrogen at a national and regional level.

BUREAU VERITAS LAUNCHES TOOL TO SUPPORT DESIGN VERIFICATION OF FLOATING UNITS

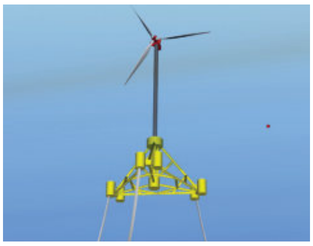


Image Credit: Bureau Veritas

The simulation tool aims to support independent design, verification and certification of floating units.

Bureau Veritas (BV), one of the global leaders in testing, inspection and certification, has launched a new digital simulation tool – Opera – which will be a major asset for the certification of floating units, notably floating wind turbines.

As offshore wind farms are built further offshore, floating wind turbines are becoming increasingly more common, a trend which has accelerated due to a growing demand for alternative energy sources that can support a zero-carbon society.

Developed over ten years of research and development and rigorous engineering, Opera offers an independent and fully integrated modelling solution that includes all components of a floating wind turbine, from mooring systems to blades.

Laurent Leblanc, senior vice-president technical and operations at Bureau Veritas, commented, "Today, we are in a position to perform any calculation to certify, give confidence and help de-risk any floating offshore wind turbine project. Opera will enable greater access to sustainable energy generated from wind, helping the offshore industry support the transition to an era of green, low-carbon operations."

A seismic fundamental shift is underway in Nigeria's digital banking sector

In Nigeria, cash has remained king and financial services have remained stagnant despite decades of efforts to replace traditional notes, according to Hany Fekry, regional president - Northern and sub-Saharan Africa, Network International.

Many in the payments industry have been predicting for years that digital payments are inevitable for the future. It is only a matter of time, the experts said over and over again.

But while the technology has continued to take over commerce worldwide, digital payments in Africa have not neared anywhere close to global adoption rates.

The challenges with developing the digital payment sector in the sub-Saharan continent are well catalogued. Challenging infrastructure, low income levels and the well-established virtues of cash – immediacy, ubiquity and trust – have all constrained the development of electronic payments in African countries.

In Nigeria, cash has remained king and financial services have remained stagnant despite decades of efforts to do away with old-fashioned paper money.

That was, until Covid-19 hit. In the aftermath of the virus outbreak, we have seen digital banking emerge across Nigeria with heightening consumer demand for efficient ways to access banking records and complete financial transactions outside physical branches and traditional card payments.

The fear of paper currency as a carrier for coronavirus has jolted the banking sector into massive digital disruption, signalling a powerful inflection point for payments in Africa. And we see this as just the start of the shift in how consumers, merchants and issuers choose to carry out transactions.

Online deposit, mobile banking apps, cards and e-bills payment have become the norm overnight, with card and virtual card payments becoming one of the most important non-cash transaction channels.

With the power to oust physical currency, the potential of plastic as a medium of exchange is unrivalled. Banks that build their issuance business now not only contribute to the foundation on which this transition can take place, but also position themselves to reap the rewards of this seismic fundamental shift.

As banks work to respond to the increased demand for digital payments induced by the pandemic, banks needed to tap into the considerable advantages held by our African markets including our youth demographic.

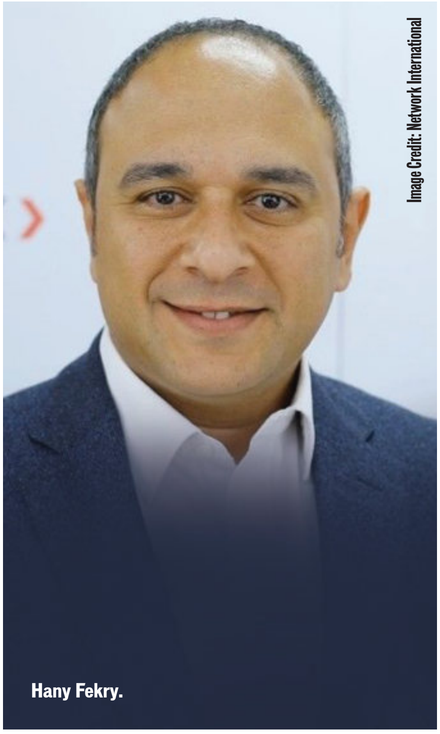


Image Credit: Network International

Hany Fekry.

While the rest of the world is ageing, the median age of the population in Africa is just 19, compared to Europe at 42, for example. The young people of Africa have been increasingly engaging with financial products in different ways, ready to trail blaze the use of modern payment services.

> "The young people of Africa have been engaging with financial products in different ways, ready to trail blaze the use of modern payment services."

This proliferation of digital banking prompted Network International to gain first mover advantage and lead the transformation in Nigeria by partnering and providing issuance solutions to financial institutions to help them respond to the changing needs of their customers.

Additionally, in the current economic climate, banks in Nigeria have been able to tap into our experience and expertise in creating virtual card solutions (VC) for emerging markets. Issuers also benefit from Network's advanced digital infrastructure and robust security protocols, avoiding the need to invest in expensive card management infrastructure.

As we power digital transactions with the capability to issue virtual cards through API Integration, connected to existing channels of financial institutions, such as mobile, internet banking and ATMs, we believe the potential exists for banks to multiply returns from virtual card issuance. Banks that incorporate virtual payment cards into their business strategy also gain greater opportunity to cross-sell other products and services.

Virtual card issuance has the potential to transform into a strategic, high value generating asset for banks, while allowing bank customers to enjoy the convenience, flexibility, safety and security of cashless payments to fulfil their financial and lifestyle needs.

We remain committed to fostering agile innovation by deploying our best-in-class technology to support digital and financial inclusion of Nigerian consumers and businesses. Because, ultimately, furthering digital adoption is going to be dependent on the people, platform and partnership.

Cash may not be gone just yet. But with this fundamental change accelerated by Covid-19, our payments ecosystem has now truly been ordained and will have profound implications for people, businesses and society. ■

MYTILINEOS establishes worldwide presence in environmental solutions

MYTILINEOS

Recognising the significance of waste management for business, MYTILINEOS has been focusing on developing innovative and competitive environmental solutions for water, liquid and solid waste in Greece and globally.

> "MYTILINEOS targets to secure and execute EPC orders for selected municipal wastewater treatment plants as well as solid waste treatment plants."

MYTILINEOS, the leading Greek industrial company active in metallurgy, power and natural gas, renewables, storage development and sustainable engineering solutions, is making a deep dive in environmental projects undertaken by its Sustainable Engineering Solutions (SES) Business Unit – evidence that the company is committed to enabling the energy transition and sustainable development.

Indicatively, MYTILINEOS led a joint venture of companies for the engineering, procurement and construction (EPC) of the Protos Energy Recovery Facility project in Cheshire, England, a new hub for energy and resource technologies, owned by Peel L&P Environmental. The plant, which will be commercially operational in 2024, will bring together a range of low carbon energy solutions for businesses aiming to provide a blueprint for the UK, as the country moves towards achieving net zero carbon emissions.

Alongside Standardkessel Baumgarte GmbH, one of the most acclaimed technological providers in waste-derived energy recovery, which boasts a track record of successful projects realised in the UK, MYTILINEOS will treat 400,000 tonnes of non-recyclable waste per year, primarily sourced from the residual fraction of municipal solid waste and commercial and industrial waste.

In addition to the more than evident environmental benefit, the investment is also expected to create significant economic opportunities to the local and regional area, both during construction and after its completion.

Protos is the first of a series of environmental projects that MYTILINEOS is expected to undertake as an EPC contractor in the large-scale energy recovery facilities business and the market feedback seems to be more than encouraging.

Moreover, MYTILINEOS targets to secure and execute EPC orders for selected municipal wastewater treatment plants as well as solid waste treatment plants.

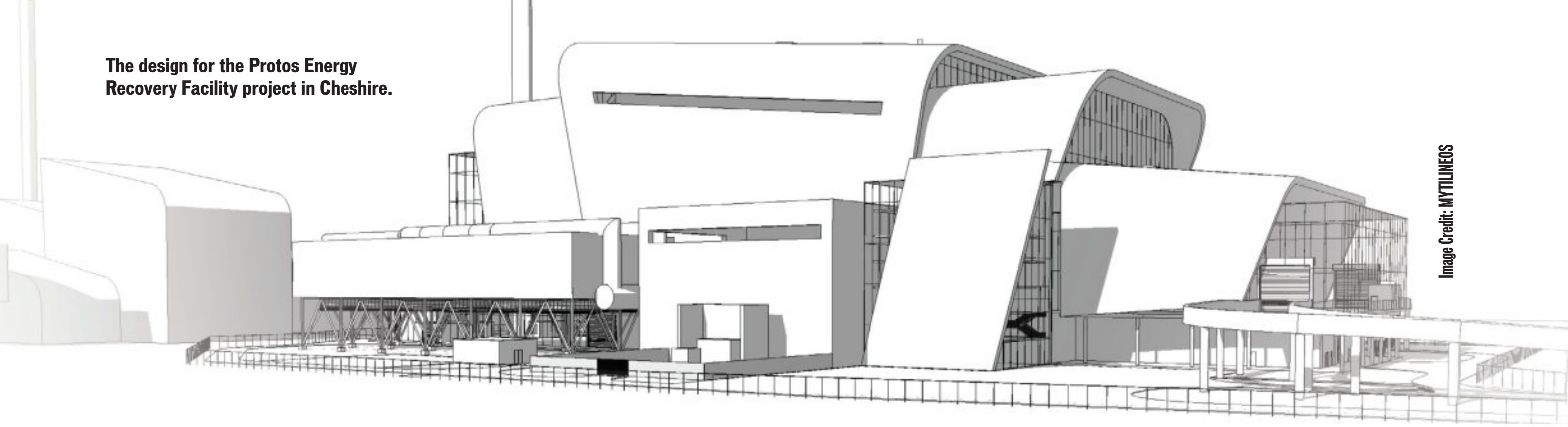
Innovative technology

At the same time, MYTILINEOS is maximising the value and opportunities created through the pioneering waste treatment technology offered by ZEOLOGIC, a subsidiary of MYTILINEOS, which applies to a number of new sectors, providing comprehensive environmental solutions to companies with a high pollutant load deriving from their activities.

Last year, ZEOLOGIC signed an agreement with FAIRDEAL MARINE SERVICES FZE, for the construction of the first treatment plant of oily sludge as well as of sludge arising from flue gas treatment systems.

This plant will be installed at the FAIRDEAL Group premises in Fujairah (UAE), marking the first environmental project of ZEOLOGIC in the Middle East, which has been exclusively designed according to the internationally patented treatment method (Geochemical Active Clay Sedimentation – GACS) for liquid and solid waste treatment. This innovative method enables waste to become 'non hazardous' and as a result, can be safely disposed.

Both projects, are solid proof of MYTILINEOS' ability to undertake complex projects, of high technical requirements and global reach, which contribute significantly to establishing a worldwide presence in waste-derived energy recovery. At the same time, the company targets key industries and addresses crucial issues, such as marine environment protection and shipping waste management, challenges that are constantly increasing, but can be managed through reliable and safe methods with significant Greek added value. ■



The design for the Protos Energy Recovery Facility project in Cheshire.

Image Credit: MYTILINEOS

Supporting for MSMEs in sub-Saharan Africa

CDC Group, the UK's development finance institution (DFI) and impact investor, has agreed to provide a risk-sharing facility with Absa, sub-Saharan Africa's third-largest bank, in order to support lending to micro, small and medium enterprises (MSEs) in sub-Saharan Africa.


Image Credit: Adobe Stock

The investment will enable Absa to provide assistance to MSMEs in need of finance.

The US$50mn commitment of CDC Group will increase Absa's capacity to offer financing solutions to MSMEs and households across sub-Saharan Africa through microfinance institutions (MFI) and non-bank financial institutions (NBFIs).

This MFI and NBFI risk sharing facility is the first of its kind for CDC – supporting lending to these institutions through credit risk mitigation and allowing them to better serve households and MSMEs across Africa.

The facility will enable Absa to deploy significant sums of capital and provide vital assistance to businesses and households in need of finance, helping them remain resilient and emerge from the Covid-19 crisis which has proved an incredibly challenging period for all.

Moreover, the investment forms part of CDC's Covid-19 response and boosts systemic liquidity at a critical time when commercial lending is limited due to the economic challenges brought on by the pandemic.

This investment from CDC, will bolster Absa's strategy to promote responsible lending practices among MFIs & NBFIs in its portfolio and highlights opportunities within the financial inclusion segment. This sends a positive signal to commercial banks to increase their lending to this segment of the economy where considerable funding needs remain unmet.

Anand Naidoo, managing executive of Client Coverage, Absa Corporate and Investment Banking, said, "We are proud to have built this partnership with CDC, which does not only bring value to the relationship but is also aligned to our overall business strategy. This facility is another proof point in the execution of our shared growth strategy which focuses on providing finance and assisting clients to achieve sustainable economic growth in the markets where we operate.

"The framework details the use of proceeds, the process for project evaluation and selection, the ongoing management of proceeds as well as the reporting and transparency.

There is a definite trend from global investors to invest in more socially responsible projects and companies because they want to see that their funds are being invested in activities that promote sustainable economic growth," Naidoo added.

CDC and Absa have a long relationship, and this latest investment reinforces the partnership between both institutions.

> "There is a definite trend from global investors to invest in more socially responsible projects and companies."
>
> **ANAND NAIDOO, MANAGING EXECUTIVE OF CLIENT COVERAGE, ABSA CORPORATE AND INVESTMENT BANKING**

This facility builds on the existing trade finance partnership, helping to enhance access to funds in the markets, facilitate increased trading of goods and services, and deepen financial inclusion among underserved communities and individuals across Africa's markets.

Stephen Priestley, managing director and head of Financial Services at CDC Group, commented, "We are thrilled to once again partner with Absa. This is CDC's first risk-sharing facility that provides a local currency solution to MSMEs and local households. We are confident that CDC's counter-cyclical funding will provide much needed support to local financial institutions by diversifying their funding base and enhancing their ability to provide smaller loans to local businesses and hard-to-reach communities. CDC remains committed to ensuring that businesses and people have greater access to the financial support needed to enable them to grow and remain resilient throughout the crisis."

According to the IFC around 90% of MSMEs in sub-Saharan Africa suffered revenue losses.

MSMEs and Covid-19

The investment from CDC will be welcome news to MSMEs operating in sub-Saharan Africa, as most businesses have struggled in recent times.

In a recent report entitled 'Covid-19 and women-led MSMEs in sub-Saharan Africa', the IFC noted that across the sub-Saharan African region MSMEs have been suffering severe economic impacts from the Covid-19 pandemic, noting that women owned/led businesses were particularly hard hit generally due to their smaller size and concentration in heavily affected sectors.

Restrictive lockdown measures and higher caseloads challenged business operations, supply chains and demand and many MSMEs were forced to manage reduced labour supply, movement restrictions and increased costs to maintain preventative measures. As a result of this, over a quarter of businesses could not continue operations as they had modelled them, a trend which particularly affected those in Southern and West Africa (36%) compared to East Africa (28%). More than half were forced to adapt their businesses while around 90% were hit with revenue losses. Forty per cent suffered from revenue losses of more than 50%. Women-owned businesses faced somewhat greater challenges, with 42% of MSMEs led by women reporting a severe decrease in revenue versus 37% for male-led. Additionally, MSMEs led by women were more likely than their male counterparts to report at least one operational cost increase due to the pandemic. ■

Sub-Saharan Africa: Charting a post-Covid future

Economist Moin Siddiqi considers that despite the formidable challenges ahead for sub-Saharan Africa, they are achievable with correct policies and strong leadership.

Actionable policies should help regain a higher growth trajectory following the region's first recession in 25 years. Near-term priorities would secure a sustained recovery once the health crisis ends; and then carrying out bold and transformative reforms to build a more resilient post-pandemic economy, which is less vulnerable to exogenous shocks.

Cumulative output losses from the Covid-19 turmoil will amount to almost 12% of gross domestic product (GDP) over 2020-21, according to the International Monetary Fund (IMF). Sustained robust output expansion, which increases per capita income growth, is needed to reverse the recent rise in poverty across sub-Saharan Africa. For durable recovery "digital transformation must be felt in all of the continent's priority sectors," noted the Africa Union/OECD Development Centre report January 2021.

The region needs extraordinary support from the international community for an adequate Covid response and to accelerate income convergence with peer developing regions. The IMF calculated that African economies risk running into a total 'financial gap' of US$290bn by 2023. Over the longer-term, official capital (bilateral grants and concessional loans) may not be sufficient. Thus, the importance of greater private capital flows to Africa. Policies to build human capital and expand trade (including intra-regional) will help enhance productivity and boost the continent's future competitiveness.

Fostering inclusive development

***Jump-starting growth:** "Africa needs to grow faster than the world – at 7 to 10% – to meet the aspirations of its youthful populations, and become more prosperous and more secure," said IMF managing director Kristalina Georgieva. On current forecasts, one-third of sub-Saharan African (SSA) countries may not return to their 2019 level of GDP until 2025. Not surprisingly, the global pandemic has derailed progress towards the 2030 Sustainable Development Goals (SDGs).

On the path to recovery, SSA needs ample financing for investments in human capital, energy, digital and physical infrastructure. The African Development Bank (AfDB) estimated the financing gap for regional infrastructure at between US$130-170bn per year. Dilapidated infrastructure in countries could reduce GDP growth by two percentage points a year, according to the AfDB.

***Greater export diversification:** SSA trails other regions in terms of export volumes, quality, and complexity – reflected in high reliance on primary goods. Africa's resource producers are among the world's least diversified economies. The region possesses ample resources to join global value chains (GVCs) in areas where it enjoys competitive advantages, notably agriculture (supplying raw materials for agro-processing); heavy metals (aluminium smelter, steel-making); hydrocarbons (oil refining, petrochemicals); gemstones (diamond cutting/polishing); and doré (gold refineries).

"This may require a shift in current diversification strategies to better accommodate the contours of a new post-Covid-19 global economy, laying the groundwork for a faster and smarter recovery," said the IMF. Investments in the transport network, energy supply and skill upgrades are needed to participate higher up in GVCs.

***Catalysing private investment:** strategies to foster the growth of dynamic private sectors are critical to accelerate economic diversification. Besides macro-prudential policies, businesses flourish on a predictable legal framework, efficient infrastructure, level-playing field between public and private firms, appropriate fiscal incentives, low red tape, and skilled workforce, among others. Sophisticated local capital markets would also increase the private sector's access to seed capital and funding for strategic projects, whilst providing more options for savers and investors.

Structural reforms: including efforts to enhance macroeconomic stability, institutional quality, transparency, financial inclusion and supporting small and medium enterprises (SMEs) to compete more effectively in priority sectors – will also improve development outcomes. By 2040, the SSA population could surge by 750 million – with Nigeria alone comprising 20% of the hike during this period, reported the International Energy Agency.

***The African Continental Free Trade Area (AfCFTA):** strong intra-regional cooperation under a 'single market' worth US$3.5 trillion with over 1.3 billion people can yield practical benefits, such as economies of scale, higher productivity and fostering structural transformation through new products and regional supply chains, as well as attracting foreign direct investment (FDI) for cross-border infrastructure projects, whilst reducing vulnerability to global disruptions and promoting much-needed food security.

Further reducing non-tariff barriers, such as quotas, licenses and sanitary/ phytosanitary barriers would boost intra-regional trade for agricultural commodities and manufacturers. Africa should reduce trade barriers so that goods, services, ideas and resources flow freely among AU countries.

***Human resource development:** some 20 million young people a year enter the job market. In the next decade, nearly half of the annual hike in global working-age population will come from SSA, estimates the IMF. It advised, "Africa needs to move up a gear if it is to make a dent on chronic unemployment levels and offer hope to millions of youngsters now entering the workforce, thereby capitalising on a much-vaunted demographic dividend."

Investment in higher education, particularly science, technology, engineering, and mathematics (STEM), vocational training and promoting digital connectivity are critical to teach core skills demanded in today's sophisticated global economy – boosting the quality of human capital.

***Pro-digital policies:** investing in IT-ready infrastructure (including expanded digital training) and fostering a digital-friendly regulatory framework that incentivises innovations in high-tech sectors. Digitalisation will help address the region's major development challenges: economic diversification, maintain/improve public services (notably education, healthcare), food security, and improve tax administration and revenue collection. The digital economy requires new investment in power generation and transmission.

SSA countries need to close the digital infrastructure gap. Only a third of Africans use the internet and the quality of mobile connection remains poor (average mobile download speed 7.4 megabits per second is three times slower than the rest of the world). A study by the International Telecommunication Union found that 10% greater mobile broadband penetration would generate a 2.5% rise in Africa's GDP per capita.

Sub-Saharan Africa predicted to rebound in 2022 after a subdued year

(real GDP, annual percentage change)

	2020	2021	2022
World Output	-3.3	6.0	4.4
Advanced Economies	-4.7	5.1	3.6
Emerging & Developing Asia	-1.0	8.6	6.0
of which: China	2.3	8.4	5.6
Emerging & Developing Europe	-2.0	4.4	3.9
Latin America & the Caribbean	-7.0	4.6	3.1
Middle East & Central Asia	-2.9	3.7	3.8
Sub-Saharan Africa	-1.9	3.4	4.0

Source: IMF, World Economic Outlook, April 2021
** Africa enjoyed strong economic growth for most of the 21st century Covid-19 disruptions caused heavy human toll and economic strain upon the region.*

> "The Covid-19 crisis contains the seeds of a large-scale reimagination of Africa's economic structure, service delivery systems and social contract."
>
> **MCKINSEY & CO**

***Increasing agricultural productivity:** through investment in improved technologies, rural financial services, and better access to markets (i.e., connectivity). Africa is endowed with 60% of the globe's uncultivated arable land, but food production falls well below optimal potential. Rural regions are sparsely populated with limited infrastructure and dispersed markets. Small-scale farmers lack accurate weather forecasts, real-time price information and best advice on farming practices and input use. Digitalisation can overcome problems of information asymmetries and connects farmers to opportunities – thus improving market logistics.

***Reforming state-owned enterprises:** de-monopolising markets for greater competition. Opaque bureaucracies stymie growth-enhancing investments.

Improving the performance of Parastatals in utility sectors can power the manufacturing industry and the digital economy. Strengthening governance, including the rule of law/fighting corruption are equally crucial. SSA should also boost domestic tax receipts (currently among the lowest in the developing world) by raising non-commodity revenues and closing tax avoidance loopholes. Raising the effectiveness and efficiency of spending enables governments to achieve more with less – i.e., greater public good.

In summary, what is needed is a broader 'region-wide' development agenda – focusing on output diversification; embracing digital revolution; moving up on GVCs; increased spending on social and physical infrastructure, as well as managing better natural resources and forging closer regional trade integration. Hence, the continent should 'build better' rather than merely 'rebuilding' in a post-Covid world. Future challenges are formidable, but achievable given the right policies and strong leadership.

The US consultancy, McKinsey & Co, noted in 2020, "The Covid-19 crisis contains the seeds of a large-scale reimagination of Africa's economic structure, service delivery systems and social contract. The crisis is accelerating trends, such as digitalisation, market consolidation and regional cooperation, and is creating important new opportunities, e.g., the promotion of local industry, the formalisation of small businesses and the upgrading of urban infrastructure." ■

Drive it like a diesel - the latest advances in Hyster Lithium-ion lift trucks

Phil Ireland from Hyster Europe discusses the latest advances in lithium-ion power for Hyster lift trucks, and why common misconceptions could leave businesses missing out on the optimal solution.

In the past, electric forklifts may have had a reputation for not being as 'tough' as their Internal Combustion Engine (ICE) counterparts. Although electric trucks thrive when matched with the right application, across the industry they can be typically seen to deliver 70% or less productivity compared to an equivalent ICE forklift. Until now.

New developments in lithium-ion

In 2020, Hyster launched the J7.0-9.0XNL series, with fully integrated lithium-ion batteries. These zero-emissions electric lift trucks with 7-9 tonnes of lift capacity offer comparable performance to an ICE truck, alongside rapid opportunity charging, due to some key advances in technology and truck design. For the first time, you can take a lithium-ion forklift, and "drive it like a diesel".

A common objection to electric lift trucks is the run time. It is a fact that batteries can only store so much energy, so previously operations would need to factor in the time, and infrastructure, for re-charging, making an ICE truck a simpler proposition. However, the capability for opportunity charging with a lithium-ion battery changes that.

Operations with two or three shift operations can easily top up the charge, preventing the need for battery exchange and a separate charging room. The battery is also maintenance free with no watering or equalising, unlike a lead-acid battery. A single shift, seven-day-a-week operation using an electric forklift with a lead acid battery would, by contrast, need to equalise every six cycles for 16 hours.What's more, the lithium-ion battery permits high levels of regenerative braking current to be absorbed, extending run time and improving efficiency. This mode of operation is only possible on an electric lift truck and delivers the added benefit of less wear and tear on the brakes, in turn reducing maintenance costs.

The secret's in the voltage

A key differentiator with the new Hyster J7.0-9.0XNL series is the voltage. The 350V technology makes high power charging and intensive performance possible. There is no loss in performance from frequent charging or capacity loss at heavy usage.

The higher voltage system makes it possible to charge at up to 50kW, speeding up the process. From empty, the lithium-ion battery can achieve 100% charge in less than 80 minutes. Importantly, high-power charging also allows for a quick boost – for certain applications, one minute of charging may create up to four minutes of drivetime. And the high voltage has other benefits too.

Image Credit: Hyster

Hyster lithium-ion powered lift truck.

Lower voltage batteries result in a higher current for the same level of power and can overheat in intensive work cycles. Conversely, the 350V battery supports high productivity (in tonnes per hour moved) and applications with both intense peaks and continuous heavy-duty usage.

In this case, an electric truck is absolutely tough enough. The Hyster J7.0-9.0XNL series also features tough drivetrains, simple engineering, longer service intervals, and components built to last the lifetime of the truck, minimising truck maintenance needs.

There is also another important myth to address – that "electric trucks overheat all the time". The Hyster J7.0-9.0XNL lift trucks are not only designed with a high voltage (and therefore low current) system that greatly reduces heat development, but also incorporates specially designed water-cooled motors and drive controllers to prevent this, while increasing the overall efficiency of the truck. Battery monitoring systems are also included to keep a close eye on under- and over-charging. ■

Go electric with Cat Lift Trucks

With decades of experience at the forefront of electric forklift development, Cat Lift Trucks is ideally placed to help African businesses make the switch to battery power.

There are currently six Cat electric counterbalance truck ranges on offer in Africa, along with a comprehensive warehouse truck line-up and, of course, IC engine forklifts. Importantly, they all come with expert advice and support to make sure the right type is selected for each application.

Quiet, emission-free electric trucks are becoming essential for indoor work, to protect employee health and to safeguard vulnerable goods such as food, drinks and pharmaceuticals. Environmental sustainability demands are another key driver for switching to electric. However, there are also good economic arguments for going electric – including lower maintenance and downtime costs.

Africa is a small but interesting market for the electric counterbalance segment.

Amongst the most popular products from Cat Lift Trucks for this region is the Cat EP(L)CB range, in capacities from 1.0 to 3.5 tonnes. These 48V forklifts are equipped with a host of ergonomic and safety features which allow drivers to work quickly, confidently and productively.

At the same time, their efficient power consumption, robust construction and low maintenance needs reduce total cost of operation (TCO), for maximum profit. Increasing energy efficiency is a key consideration in Cat truck design, as electricity bills and battery runtimes affect the user's profitability. Easy battery access and servicing, to minimise the time and labour involved, are further priorities.


Image Credit: Cat

Amongst the most popular products from Cat Lift Trucks for this region is the Cat EP(L)CB range.

Additional advice on the advantages of electric forklifts can be found here: https://www.catlifttruck.com/ame/blog/product-spotlight-electric-forklift-trucks.

GLTC OFFERS BESPOKE ENERGY SOLUTIONS FOR MATERIALS HANDLING EQUIPMENT

One of the growing trends in the forklift industry is the move towards battery-powered technology, especially the growing preference for lithium-ion. In fact, the forklift/lift truck industry has for years been the leader in 'green' solutions and with renewed focus from the automotive sector on electric vehicles, the development of alternative energy sources and batteries will escalate to new levels.

Lithium-ion batteries are widely considered to be the technological future in the sector, especially when it comes to powering materials handling equipment. While in the last few years these batteries have emerged as the potential successor to the more commonly used lead-acid batteries, Goscor Lift Truck Company (GLTC) believes that they may not necessarily be the only solution to every customer and application.

As one of the first-to-market with tailor-made lithium-ion solutions and electric solutions at large, GLTC advises its customers that, before making any decisions on the battery technology that is best for them, it is always best to fully compare all the relevant information and alternatives, in partnership with the supplier, to help make the most informed decision that is suited for the application at hand.

"As a market leader in this space, we work closely with customers to offer an energy solution that is suited to their specific application. We consult very closely with the customer to ensure that whatever they choose is tailored to their requirements," said GLTC sales director Patrick Barber, adding that the company offers different lift truck energy options, including lithium-ion, lead-acid and copper stretched metal (CSM).

Lithium-ion

Barber says the company has been testing this technology for more than two years on some sites. A key differentiator for GLTC is that its lithium-ion offering is customer- and application-specific. The only way to get the best out of a lithium-ion investment, he adds, is to do a customised solution based on utilisation, frequency of charging and the size of equipment. GLTC scaled up its lithium-ion range, offering imported and locally-made options, which are for normal ambient applications such as manufacturing plants and warehousing.


Image Credit: GLTC

The only way to get the best out of a lithium-ion investment is to do a customised solution based on utilisation, frequency of charging and the size of equipment.

FAW Trucks enters back into Namibian market

The commercial vehicle manufacturer moves into new premises as partnership with Africa Commerical Vehicles continues to flourish in Namibia.

Image Credit: FAW Trucks

FAW Trucks model: JH6 28.500 FT.

FAW Trucks has relaunched the brand in Namibia, aiming to reaffirm its commitment to customers in that country.

The commercial vehicle manufacturer found a reliable home with Africa Commercial Vehicles (ACV), a leading force in the Namibian commercial vehicle market, in 2018.

As one of the country's most reputable dealers, ACV has been providing consistently high levels of customer service and aftersales support from its premises in Windhoek, and as a result the FAW Trucks brand has flourished.

Since becoming the authorised FAW Trucks dealership, the business has expanded to such an extent that it had to move to larger premises.

"ACV is a great fit for FAW Trucks as the two entities subscribe to the same values of honesty, quality, commitment and forging long-lasting relationships," said Jianyu Hao, CEO of FAW South Africa.

Jakkie Coetzee, dealer principal at ACV concurs, added, "We too are committed to truck sales and service of the highest quality. We do business ethically and I believe this is one of the reasons why FAW Trucks continues to gain momentum in the Namibian market."

Coetzee, who has been with ACV since 2010, has complete trust in the FAW Trucks brand. "With a host of different engine capacities, payload allowances and body options on offer, Namibian businesses big and small can rely on our products to get the job done."

As is the case with vehicle markets around the globe, Namibia has been severely impacted by the negative effects of the Covid-19 pandemic. However, the market is showing some green shoots and Coetzee believes it will take a significant turn for the better in the months to come. His confidence is further bolstered by the fact that ACV recently received an order for five 8.140 FAW Truck units from a new customer to the brand. These units will be sourced from the assembly plant in Coega, Port Elizabeth.

FAW Trucks has been building a solid reputation for providing trucks that are built in South Africa, for Africa.

Image Credit: FAW Trucks

Last month, FAW Trucks Eastern Cape celebrated two years as one of the truck brand's top dealerships in South Africa. The facility has played a significant part in FAW Trucks reaching the top spot in the heavy commercial vehicle (HCV) segment of the local market for the first time earlier in Q1 2020. The dealership is one of the jewels in the local FAW Trucks dealer network and consists of a full-service workshop and parts store, a paint shop, a boiler shop, a fabrication shop, a tyre store, a laboratory, a wash bay and an oil store. As it falls under the umbrella of the Scribante Group, it also houses a ready mix batching plant for Scribante Concrete.

Statistically, the most popular model is the 15.180FL, offering a spacious and ergonomically designed semi-sleeper cab, and a body and payload allowance of 9.8 tonnes. Standard features include air-conditioning and a radio with MP3 and USB functionality. Its Euro 2-compliant 6 557 cc, six-cylinder, in-line turbocharged engine is linked to a fully synchromeshed six-speed transmission and it has a full air dual circuit WABCO braking system with ABS. ■

MERCEDES-BENZ TRUCKS USHERS IN A NEW ERA TO MEET CO2-NEUTRAL TARGET

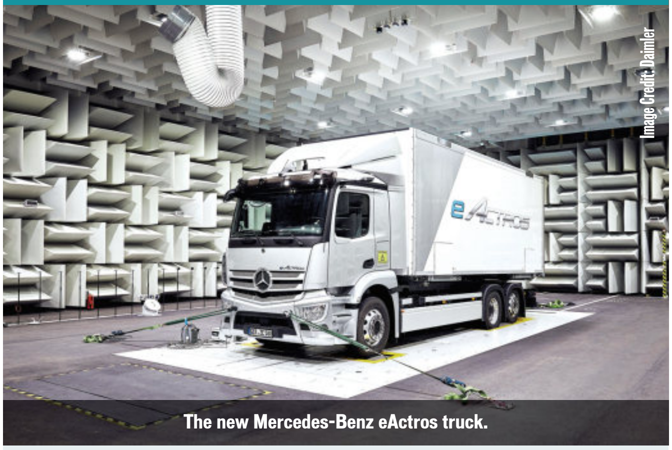


Image Credit: Daimler

The new Mercedes-Benz eActros truck.

Mercedes-Benz Trucks celebrated the world premiere of its battery-powered eActros for heavy-duty distribution on June 30, underscoring its commitment to locally CO2-neutral road transport.

Karin Rådström, member of the board of management Daimler Truck AG, responsible for Mercedes-Benz Trucks, and Andreas von Wallfeld, head of sales and marketing Mercedes-Benz Trucks, presented the series-production model of the eActros, which is due to come off the assembly line at the Wörth am Rhein plant in the second half of this year.

Speaking before the premiere, Andreas von Wallfeld, said, "The eActros that we will now unveil is the final result of all the experience we gained on the road and on test rigs. It is a reflection of the innovative strength of our Mercedes-Benz brand when it comes to alternative drive systems. At the same time, the vehicle is also the result of our close and intensive cooperation with our customers."

IVECO S-WAY: THE 100% CONNECTED TRUCK TAKES FUEL EFFICIENCY TO THE NEXT LEVEL

Image Credit: Iveco

Iveco's S-Way truck.

IVECO has unveiled the IVECO S-Way heavy on-road vehicle to its dealer network in a live digital event streamed on the IVECO Live Channel platform.

The new range has been engineered to deliver outstanding value and productivity for the fleet owner. It further increases its fuel efficiency, which was already among the best, with a new engine line-up and next generation rear axle, advanced technologies and innovative services tailored to the customers' needs. It takes connectivity and driver-centricity to a new level with the unique IVECO Driver Pal voice companion, new advanced functionalities and connected services. Thomas Hilse, IVECO brand president, said, "The world is moving fast, and the world of transport must not only keep up, but anticipate and drive the change. IVECO is doing exactly that. The new IVECO S-WAY is the future of the world of transport – and it's here today. It will take our customers to the next level."

Doosan to supply 90 construction machines for Africa

The Doosan DX340LC excavator.

Image Credit: Doosan Infracore

Doosan Infracore has announced that it has signed contracts to deliver a total of 221 construction machines in countries in Africa, Asia, the Middle East and Latin America this year.

In Africa, Doosan Infracore has signed a contract for 35 excavators and wheel loaders for a large Moroccan construction company. The company is actively conducting business in northern and western Africa and is one of Doosan Infracore's major customers, owning more than 300 Doosan products. Doosan Infracore has also won an order for 35 wheel loaders for various agricultural projects led by a government department in Egypt, which currently owns more than 100 Doosan construction machines.

Doosan Infracore is securing more large customers across Africa, having received an order for 20 excavators to be used in gold mines from a mining company in Ghana. Elsewhere, the company has won major orders in Hong Kong, Thailand, Vietnam, Oman, Qatar, Saudi Arabia, Turkey and Colombia.

"The new orders are the result of our efforts to foster dealers and develop the market even in the midst of the market slump caused by the spread of Covid-19. We plan to accelerate our efforts to enhance our brand image in emerging markets and expand sales volume and market share accordingly as the market situation improves," said Jeong Kwan-hee, managing director for sales in emerging markets at Doosan Infracore.

For more information on the Doosan range, visit the website: www.doosanequipment.eu

WINNING BIDDER FOR NIGERIAN 38KM BRIDGE TO BE SELECTED BY OCTOBER

Ope George, director-general, Office of Public-Private Partnership, (PPP), Lagos State, has said that the winning bidder for the Fourth Mainland Bridge, out of six short-listed bidders, will be determined by October. The 38km bridge, which will be the longest bridge in Africa when completed, is expected to connect Lagos Island through Lekki, Langbasa and Baiyeku towns and across Lagos Lagoon to Itamaga in Ikorodu. Estimated to cost US$2.5bn, it will be a four-lane dual carriageway, with possibilities for expansion and a light railway, and interchanges to facilitate interconnectivity between different parts of the state. It will be funded under a PPP arrangement. Construction is expected to begin before the end of the year.

NEW TECHNOLOGY FOR ASPHALT RECYCLING

Providing asphalt with the required quality and quantity at the right time is a challenging task that requires perfectly coordinated plant technology. BENNINGHOVEN has developed hot-gas generator technology, which allows the owner to turn up to 100% reclaimed asphalt into new asphaltic mixtures while complying with the German TA Luft standard, more than with any other recycling system on the market, the company says.

Image Credit: BENNINGHOVEN

The asphalt mixing plant BA RPP 4000 in the Black Forest, Germany.

BENNINGHOVEN also offers the hot feed system as a retrofit solution for integration into existing asphalt mixing plants.

High recycling ratios with low emissions can only be achieved with a recycling drum using counterflow action with a hot-gas generator. By heating the reclaimed asphalt, the virgin material does not have to be added to the mixing process overheated in order to reach the required temperature level (around 140°C to 180°C for hot asphalt). This saves a significant amount of energy in addition to emissions.

This process is made possible by using the BENNINGHOVEN hot-gas generator. While the recycling material with bitumen would be "burned" by direct firing, the hot-gas generator only heats it indirectly to bring it to the optimum processing temperature. At the same time, the process lowers the emissions below the level required by the TA Luft regulation, for example by burning most of the hydrocarbons contained in the exhaust gas flow.

BRIEFS

3D concrete printing for housing

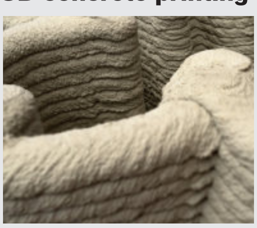


Image Credit: Adobe Stock

Ten units of affordable housing will be constructed using 3D concrete technology.

Lafarge Cement Zimbabwe will construct ten units of affordable housing using 3D concrete printing technology to showcase the abilities of this technology to address the country's shortage of housing and school infrastructure, while reducing carbon footprint. The units will be constructed in the affordable housing project at Knockmalloch. The technology, which allows a house to be finished in 12 hours, was developed at LafargeHolcim's research and development centre.

Image Credit: Adobe Stock

The industrial park will attract companies from a wide range of industsries.

Industrial Park for Ethiopia

China Civil Engineering Construction Corporation (CCECC) has begun the construction of the CCECC Dire Dawa Industrial Park in eastern Ethiopia.

It will consist of several clusters for export, development, and service-centered companies and is projected to attract companies from a wide range of industries, ranging from textiles and food and beverages to logistics.

Dire Dawa is Ethiopia's second largest city.

WIDIA launches new milling platform

WIDIA has launched the M8065HD indexable milling platform for heavy-duty milling operations in steel and cast iron materials. Designed with eight cutting edges and extra wide chip gashes, the M8065HD is capable of achieving deep depths of cuts while producing high metal removal rates during face and shoulder milling applications.

"Face milling is one of the most common machining operations, so we designed a versatile and cost-effective solution that delivers substantial improvements in metal removal rates in steel and cast iron for our customers," said Christine Schneider, WIDIA senior global portfolio manager.

Image Credit: WIDIA

The tool enables customers to reduce machine set up times and inventory costs.

"The M8065HD represents a turnkey solution for general engineering, energy and automotive customers who want to reduce their face milling tooling inventory and increase their machining outputs."

Engineered with a 65-degree approach angle with a 6.35mm thick insert, the M8065HD has one universal insert geometry in three versatile grades. These design features, coupled with eight cutting edge inserts, enable customers to reduce overall machine set up times and inventory costs by utilising one tool for multiple operations.

PROMOTING INDUSTRY 4.0 TECHNOLOGIES IN EGYPT'S MANUFACTURING SECTOR

Egypt's Information Technology Industry Development Agency (ITIDA) and the United Nations Industrial Development Organisation (UNIDO) are teaming up to promote Industry 4.0 technologies in the country's manufacturing sector, according to a report in Egypt's Daily News.

The announcement came as ITIDA participated in UNIDO's online webinar "Industry 4.0 in Egypt: Enhancing the Readiness for the Adoption of Industry 4.0".

ITIDA CEO, Amr Mahfouz, said that Egypt is fully committed to adopting and harnessing Industry 4.0 technologies across all sectors, as part of its Vision 2030, which aims to develop the country as a sustainable technologically industrialised hub.

UNIDO's five-year Program for Country Partnership (PCP), aims to advance Egypt's inclusive and sustainable industrialisation. A key objective is to help the country increase the integration of Industry 4.0 technologies in major industrial sectors, and to enhance the contribution of industry to national economic, environmental and social development.

Expanding trade between Botswana and Zambia

Mwangi Mumero provides an in-depth look at the bridge developments across the continent that are opening up trade opportunities between the regions.

Image Credit: Daewoo E&C

The newly-built Kazungula Bridge across the Zambezi River was opened in May, 2021.

African nations have, in recent years, been investing heavily in infrastructure such as roads, bridges, railways and airports.

Bridges have become a critical link in the transportation goals of the nations while boosting regional, intra-regional and continental trade and commerce.

In eastern, central and southern Africa, new bridges are being constructed easing movement along borders, spanning major rivers and even facilitating transport on roads passing through creeks or waterways.

And they are saving cargo hauliers millions of dollars in reduced fuel costs and waiting times, especially where old ferry services exist.

Private investors and international lenders have also been investing heavily in these infrastructure projects.

For instance, the newly opened US$259mn Kazungula Bridge on River Zambezi forms an important trade link between the nations of central and southern Africa.

Located on the international border between Zambia and Botswana, the 923m bridge boasts a road and rail link between the two nations that were previously connected by a creaky ferry service across the mighty Zambezi River.

"Ferry services can delay trucks for as long as 10 days. With the bridge, the waiting time of services will be considerably shorter," said Memory Mulunga, a Zambian transport cargo coordinator at the Kazungula border post.

Completed and opened in early May 2021, the bridge took almost seven years to construct with some delays occasioned by the Covid-19 pandemic.

The bridge is curved to avoid the nearby borders of Zimbabwe and Namibia and features a single-lane railway track between two traffic lanes and pavements for pedestrians.

It was constructed by Daewoo E&C and financed by the Japan International Cooperation Agency (JICA) and the African Development Bank (AfDB). Funding was shared on a 50-50 basis between the two countries.

The two nations have also partnered to construct a one-stop border post to facilitate faster clearance of vehicles and people on the bridge crossing.

The bridge is part of the North-South Trade route that connects the nations of Democratic Republic of Congo (DRC), Angola, Zambia to the north, and Botswana, Namibia and South Africa to the south.

It has been connected to the planned Mosetse-Kazungula-Livingstone Railway which will further deepen trade and commerce between Botswana to the south, and Zambia in the north.

The proposed railway line will offer a direct transport route of goods and people in a region from the Democratic Republic of Congo (DRC) to the port of Durban in South Africa.

The completion of the combined railway and Kazungula bridge over the Zambezi and the railway link will allow for swifter transport of goods and people in the southern Africa region.

"The bridge will lower the cost of doing business and increase trade and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competitiveness, job creation, tourism and other positive effects," observed Edgar Lungu, Zambia's President during the official opening ceremony.

The ceremony was also attended by the Botswana leader Mokgweetsi Masisi as well as officials from the Common Market for Eastern and Central Africa (COMESA), Southern Africa Development Community (SADC) and the African Union (AU).

"This bridge is significant as is located at a point where Botswana, Zambia, Zimbabwe and Namibia meet. It will be an avenue for improved trade," observed Mokgweetsi Masisi, the President of Botswana.

Analysts say that the bridge will also boost intra-regional freight transport by allowing trucks to bypass the Beitbridge border post between Zimbabwe and South Africa.

It is also expected to improve efficiency of the South Africa Development Community (SADC).

According to the African Development Bank (AfDB), one of the financiers of the project, the bridge will 'bridge the regional divide'.

"The Kazungula Bridge will transform the dynamics of transportation in surrounding communities, counties and cities, boosting road travel and the ease of doing business within the region," said Mamady Souare, manager of Regional Integration Operations at the AfDB.

> "The bridge will lower the cost of doing business and increase trade and competitiveness, job creation, tourism and other positive effects."
>
> **EDGAR LUNGU, PRESIDENT OF ZAMBIA**

Lake Victoria

Further north in Tanzania, the Busisi-Kigongo Bridge on Mwanza Gulf on Lake Victoria, is scheduled for completion in July 2023.

It is expected to connect Mwanza, Tanzania's second largest city to the Geita Region, which neighbours Rwanda, Burundi and Uganda.

Billed to be the longest bridge in the East African region, it will cost US$300mn and will be entirely financed by the government.

The 3.2 km bridge project is being constructed by the China Civil Engineering Construction Group (CCECG) and the China Railway 15th Bureau is expected to replace ferry services between Kigongo and Busisi, cutting down travel times by approximately three to four hours.

It will also boost the number of vehicles crossing from 1,600 to 10,200 on a daily basis. The 180-tonne capacity bridge will allow 1,600 vehicles to pass at a time.

The bridge connects the two towns of Kigongo and Busisi which lie astride the strip of water on Lake Victoria. Completion will make it easier to pass through the Mwanza Gulf and boost trade and commerce in the Great Lakes Region.

Rwanda, Burundi, northern Tanzania and Eastern Democratic Republic of Congo (DRC) are bound to benefit from increased trade brought about by faster cargo haulage along the bridge, which also involves the construction of a 34km road to Mwanza.

The city is the economic hub of the Great Lakes Region.

"This bridge will reduce transport time and facilitate trade among the East African countries. Currently vehicles spend up to three hours to cross to either side of the Lake by ferry and about 45 minutes to reach the other side," said Isaac Kamwelwe, Tanzania Works, Transport and Communications Minister.

Dar es Salaam

Another bridge that is in the final phase of completion in Tanzania is the US$112.8mn Selander Bridge in Dar es Salaam. Work on the project commenced in 2018.

Funded jointly by the governments of South Korea and Tanzania, the bridge connects roads linking Aga Khan Hospital in the outskirts of the city to Coco beach on the Indian Ocean.

It is approximately 6.2 km and it is expected to carry 55,000 vehicles per day, reducing congestion along the overwhelmed older Selander Bridge constructed in 1929.

In neighbouring Kenya, bridges are underway in Mombasa, Kenya's second largest city.

One of the oldest cities in East Africa, Mombasa is an island served by Likoni Ferry to the south, Nyali Bridge to the north and Makupa Causeway to the west.

Age and massive erosion from sea waves on Makupa has demanded the construction of a new bridge that allows water to pass underneath and with little environmental impact.

The US$42mn Makupa Bridge project replaces the causeway that connects the Island of Mombasa to the mainland and specifically the busy A109 route to Nairobi, Kenya's capital city.

The China Communications Construction Company (CCCC) is the main contractor and will build parallel bridges, each 20m wide.

It will feature four traffic lanes as well as a rail link and pedestrian facilities.

The new link will be 457m in length and will improve the city's traffic flow and boost Kenya's economy.

Numerous cargo trucks use the bridge when transporting goods from the Port of Mombasa to Kenya and other destinations, such as Uganda, South Sudan and Rwanda.

Environmentalists say that the bridge will allow water to flow underneath, currently restricted under the massive earth of the causeway.

"The bridge will be made from reinforced concrete with foundation piles of up to 40m deep. When complete in April 2022, the new bridge will help restore the ecosystem in the area including free flow of water and marine life," said Stephen Gichuru, the Kenya National Highways Authority (Kenha) resident engineer for the project. Kenha is the government body in charge of major highways in the country.

Another ongoing project in Mombasa is the construction of the US$250mn Dongo-Kundu bypass road, which involves the construction of several bridges along the 17.5km road that connects the Nairobi-Mombasa Highway to the Mombasa-Lunga Lunga Road on its way to the Tanzania border.

The bypass which aims to decongest the Port city of Mombasa runs through creeks, such as Port Reitz Bay necessitating the need for a series of nine bridges along its path.

Among the bridges along this bypass is the Mwache Bridge (680m), Mteza Bridge (1,480m) and viaduct bridge, spanning 680m.

The bypass project, currently over 70% completed, is expected to be completed in 2024.

The project is funded by the Japan International Cooperation Agency (JICA) with construction being undertaken by the China Civil Engineering Construction Corporation.

Meanwhile, up north in Ethiopia, the construction of the US$49mn Bahir Dar Abay Bridge is underway. The 380 metre long, 21.5 metre wide bridge will accommodate a three-lane carriageway, a bicycle path and a walkway.

It has been fully funded by the Ethiopian government and aims at replacing the already existing 60-year-old bridge on River Abay, a tributary of the Blue Nile.

Construction is being undertaken by the China Communication Construction Company (CCCC) and it is expected to take three years from its commencement in 2019. Upon completion, it will be the longest bridge in the country. ■

Using railway for transporting goods from Lagos to Kano can save US$1,195 per consignment.

New railway projects in Nigeria to boost economic growth

Nigeria is upgrading its railway infrastructure to boost economic activity around the Lagos-Kano-Jibiya corridor and make transportation between trading hubs time and cost efficient. Vinita Tiwari reports.

Image Credit: Adobe Stock

The Ministry of Transport, Nigeria has given the go ahead to the construction of the much awaited Kano-Maradi railway line. Portuguese company Mota-Engil's subsidiary in Africa has signed a contract for the design, construction and financing of the project in the Federal Republic of Nigeria, and in the Republic of Niger.

The company will build a standard gauge railway line connecting the three federal states of Kano, Jigawa and Katsina with Niger. Covering a stretch of 283km, the line connects Kano, Dambatta, Kazaure, Daura, Mashi, Katsina, Jibiya in Nigeria and Maradi in Niger.

The US$1.9bn project is expected to open Nigeria to economic opportunities by reactivating the historic Sahel-Sahara trade route, which had Kano as a major trading hub.

Rotimi Amaechi, Minister of Transportation, Nigeria, has stated that once completed, the Kano-Maradi rail will be ready to handle 9,364 passengers daily, and approximately 3,000 metric tonnes of freight, on return trips between Kano and Maradi.

The Nigerian government has financed the project with help from KfW-IPEX Bank, Africa Finance Corporation and Credit Suisse, the financial advisors of Mota-Engil, and supported by several Export Credit Agencies (ECAs).

The government's decision to upgrade major railway lines or build new ones, while the country succumbs to the weight of foreign loans, has attracted much attention. While there are political apprehensions about the project and its scope, the government is optimistic that once completed, this line will open access to Nigeria's famous trade hubs.

The Kano-Maradi line connecting the federal states of Kano and Jigawa, starts in Kano, and runs northwards, parallel to the A2 Kano–Daura road. After bypassing Dambatta and Kazaure, it continues towards the north to reach Daura, from where it turns westwards, and proceeds towards Katsina, crossing the city of Mashi. After Katsina, the railway runs along the A9 road towards Jibiya, and the boundary between Nigeria and Niger, and reaches the Maradi town.

Another branch line to Dutse, has also been scheduled for construction. The line, determined by Mota-Engil and approved by the Federal Ministry of Transportation, starts in Kano, and runs eastwards, parallel to the A237 road until Wudil, and then continues parallel to Gaya-Azare road, until it reaches Dutse town. This line will connect 20 stations, including Kano and Katsina.

The Kano-Maradi rail line is the last section of the LAKAJI (Lagos-Kano-Jibiya) corridor, Nigeria's busiest trade route, which facilitates the movement of 30 million tonnes of goods per year and accounts for 36% of the country's total output. As many as 90 million Nigerians live along the corridor, which makes it the most important transport route in the country, in terms of food security and exports. The corridor connects West Africa's largest agricultural market in Dawanau, Kano, with the region's largest consumer market in Lagos, and links leading production and processing zones for strategic exports to the Lagos ports.

High transport and logistics costs and delays in moving agricultural products are bottlenecks, which keep the agricultural markets from flourishing and reduce the competitiveness of producers. A research survey by Nigeria Expanded Trade and Transport (NEXTT), found that exporting a 20in container from Jibiya via the LAKAJI Corridor costs US$3,041, and takes 12.5 days; while importing a 20in container via the LAKAJI Corridor costs US$4,737 and takes 19.5 days.

The cost of rail transport on the other hand, from Lagos to Kano is US$0.045 per tkm (NGN 7.1 per tkm), with the cost of insurance at 0.25% of the consignment value, according to the *Lagos-Kano-Jibiya (LAKAJI) Corridor Performance: Baseline Assessment Report on the Time and Cost to Transport Goods.*

Using rail from Lagos to Kano can save the shipper US$1,195 per consignment as railway offers the cheapest alternative to road transport, with reduced costs and delivery times from port to the hinterland and neighbouring countries.

The LAKAJI trade corridor was identified as an economic corridor in 2013 by the USAID NEXTT LAKAJI Investment Corridor Project, which brought together 230 Nigerian and international participants, representing agribusiness firms, agro-allied industries, farmers, banks, investment funds, for the LAKAJI Agricultural Growth Corridor Investment Summit in 2013. The summit discussed the potential of the Lagos-Kano-Jibiya Corridor for encouraging agricultural investment and transforming LAKAJI Corridor, from a busy single road into a combination of road, rail, air, power and ICT – a multi-modal trade expressway with junctions for off-corridor states and other important agri-processing clusters. The corridor from Jibiya to Lagos will be designated as a free zone for agri-processing and related services.

Since the investment in transport and logistics services was severely constrained in the past, opening up a railway line and connecting it to the Lagos-Ibadan line will improve the flow of goods, while keeping the cost and road traffic low.

According to a report entitled: *'Kano-Maradi Line: What's Shaping Nigeria's Infrastructural Choice, Politics or Economics?*', Kano has prominent food, textile and livestock markets. Dawanau is one of the largest grain and cash crop markets in West Africa, which sees buyers from Europe, Asia, America and Saudi Arabia for items, such as Moringa seed and leaf, sesame seed, and Hibiscus flower and others, such as soya beans, millet and Guinea corn. At Dawanau, goods are transported daily to Togo, Burkina Faso, Cameroon, Chad, Niger, Ghana, Central African Republic, South Africa, Libya and other countries.

The rail line and its ancillary facilities will also create conditions for the growth of existing businesses and industrial facilities, internal and external trades and country integration. During construction, the project will create more than one thousand direct jobs, which will have a positive impact on the local economy. The newly created local jobs would benefit the local communities by training and transfer of technical know-how from Mota-Engil.

Lagos-Ibadan rail project

Meanwhile the Lagos-Ibadan rail project which was commissioned with June 2021 as the deadline is progressing at a slow rate.
The China Civil Engineering and Construction Corporation (CCECC), the contractor handling the project, has been asked to speed up the process and finish at least seven of the ten stations immediately, namely, Apapa, Ebute-Metta, Agege, Kajola, Papalanto, Abeokuta and Ibadan. The double-track standard gauge rail is the first of its kind in the West Africa region and runs from Nigeria's economic hub and most populous city, Lagos, to Ibadan, the capital of Oyo state.

On the eastern corridor of the country, the reconstruction of the Port Harcourt-Enugu-Makurdi-Maiduguri rail line, with branches to Owerri in Imo state and Damaturu in Yobe state have also been given the go ahead by the president. The reconstruction will include a deep sea port in Bonny Island and a Railway Industrial Park in Port Harcourt. The Federal Ministry of Transportation and Ministry of Finance have been directed to act promptly on concluding the financial arrangement with appropriate co-financiers as partners for the federal government, for the development of the West-East Coastal railway line, from Lagos to Calabar, and linking Onitsha, Benin, Warri, Yenegoa, Port Harcourt, Aba and Uyo. ■

Image Credit: Mota-Engil

Antonio Graça, country manager of Mota-Engil Nigeria, and Alhaji Nasiru Wada, Magajin Gari of Kano.

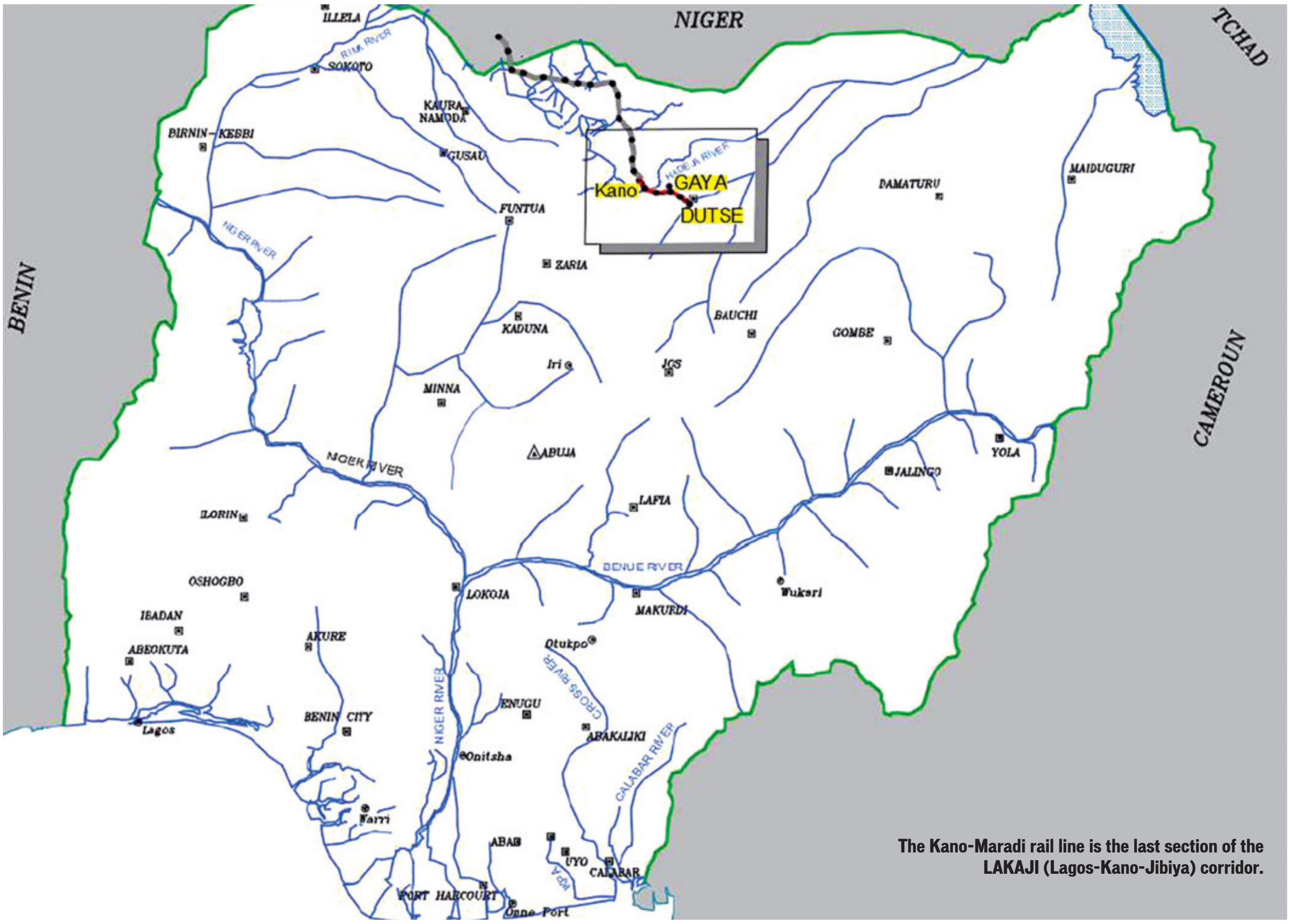


Image Credit: Mota-Engil

The Kano-Maradi rail line is the last section of the LAKAJI (Lagos-Kano-Jibiya) corridor.

CWP and Mauritania sign MoU to develop major green hydrogen project

Image Credit: Adobe Stock

Wind and solar energy will power electrolysers for the production of green hydrogen.

The Government of Mauritania and renewable energy developer, CWP Global, have signed a Memorandum of Understanding (MoU) for the development of a 30GW "Power-to-X" project. This will be the world's biggest renewable energy project, exporting green hydrogen and its derivatives to global markets. The project, called "AMAN", will be located in the north of the country on a site of approximately 8,500 sq km.

CWP is a global pioneer in the development of ultra-large-scale green hydrogen hubs. The company identified Mauritania as one of the best locations in the world for the production of low-cost green hydrogen. The project's hybrid wind and solar generation benefits from a stable, high-capacity factor profile at the desert site, promising some of the cheapest clean energy in the world, and making it ideal for massive-scale green hydrogen and its derivatives. The 30GW of wind and solar will power electrolysers for the production of green hydrogen, and will play a significant role in reducing carbon pollution from energy generation, transport, agriculture and steel production, contributing towards the net zero emissions trajectories required to achieve the goals of the Paris Agreement.

The Mauritanian government has opened the door to international investors and committed to accelerate progress on the project's development and approvals process.

Mark Crandall, founder and chairman of CWP Global, said, "We are pleased to have the confidence and support of the Mauritanian government for the development of this ambitious project, which will create a stable export vector and generate thousands of new jobs in construction, local manufacturing, operations and export facilitation. The project will have a transformative effect on the Mauritanian economy, generating billions of dollars in exports and providing access to inexpensive electricity and water for the population and economy."

Abdelsalam Mohamed Saleh, Minister of Petroleum, Mines and Energy of the Islamic Republic of Mauritania said, "The government of Mauritania has put the exploitation of its immense renewable resources as a priority to promote accelerated, sustainable, and equitable economic growth for all the people of Mauritania."

WINCH ENERGY LAUNCHES CROWDFUNDING CAMPAIGN

Off-grid utilities provider, Winch Energy, is seeking to secure up to £1.5mn (US$2.1mn) through a crowdfunding campaign for projects to accelerate the installation of renewable energy technology in Sierra Leone and Uganda. The Crowdcube campaign is part of an overall fundraising plan over the next two years and follows Winch Energy's recent closure of the largest mini grid limited recourse financing deal so far, via Winch IPP Holdings.

Winch Energy's proprietary Remote Power Unit (RPU) technology and software operating systems can be deployed, installed and connected to a local distribution network within weeks, and are developed to broaden access to reliable, affordable clean energy in off-grid communities – powering villages and health centres in Uganda, where it is set to become the largest off-grid utility in the country, and Sierra Leone.

IEA STRESSES NEED FOR CLEAN ENERGY INVESTMENT

Annual clean energy investment in emerging and developing economies needs to increase by more than seven times – from less than US$150bn last year to over US$1 trillion by 2030 – for the world to reach net-zero emissions by 2050, according to a new report from the International Energy Agency (IEA).

The report entitled: *'Financing Clean Energy Transitions in Emerging and Developing Economies',* which was carried out with the World Bank and the World Economic Forum, says that unless much stronger action is taken, energy-related carbon dioxide emissions from these economies – which are mostly in Asia, Africa and Latin America – will grow by five billion tonnes over the next two decades.

"Governments need to give international public finance institutions a strong strategic mandate to finance clean energy transitions in the developing world," said Dr Fatih Birol, IEA executive director.

The report calls for a focus on channelling investment into sectors where clean technologies are market-ready, but also laying the groundwork for scaling up low-carbon fuels and industrial infrastructure needed to decarbonise rapidly growing and urbanising economies. It also calls for strengthening sustainable finance frameworks, addressing barriers on foreign investment, easing procedures for licensing and land acquisition, and rolling back policies that distort local energy markets.

The report underscores that clean energy investments and activities can bring economic opportunities, and calls for clean energy transitions to be people-centred, providing for universal access to modern energy. Spending on efficient appliances, electric vehicles, and energy efficient buildings can provide jobs and can support the role of women entrepreneurs, it added.

BRIEFS

Image Credit: Adobe Stock

The first debt financing round will finance more than 3,000 home solar systems.

Partnership for DRC solar

Swedish investment platform Trine is partnering with Altech Group, a DRC market leader in distributing clean energy products and services. The new partnership, totalling 5mn euros (US$6mn) across multiple tranches, is set to accelerate investments in solar in the DRC, expanding access to clean, reliable, and affordable energy for off-grid households. The first debt financing round will finance more than 3,000 solar home systems, with further rounds to follow.

High-voltage switching solutions

Image Credit: Adobe Stock

The study will explore climate-neutral high-voltage switching solutions.

Siemens Energy and Mitsubishi Electric have signed an MoU to conduct a feasibility study on the joint development of high-voltage switching solutions, with zero global warming potential (GWP) that substitute greenhouse gases with clean air for insulation.

They will start with a 245kV dead-tank circuit breaker that will speed up the availability of climate-neutral high-voltage switching solutions for customers around the globe.

Enlit Africa highlights

Energy security is at the centre of South Africa's economic recovery plan, asserts Gwede Mantashe, South Africa's Minister of Mineral Resources and Energy.

South Africa's Minister of Mineral Resources and Energy, Gwede Mantashe, said energy security is at the centre of the country's Economic Reconstruction and Recovery Plan, "with a requirement of reliable, affordable and clean energy sources, as well as long-term sustainable jobs."

The ministerial address was delivered on behalf of the minister by advocate Thabo Mokoena, director-general of the Department of Mineral Resources and Energy, during the opening session of Enlit Africa, which took place online on 8-10 June.

He said South Africa fully appreciated the risk of climate change for current and future generations and the need for a transition to a low carbon economy. Mitigating climate change and a just energy transition are also important themes of the conference.

Minister Mantashe said while the "National Development Plan needs South Africa to transition to a lower carbon-intensive economy, we recognise the challenges proposed by climate change, given our country's developmental needs, and that coal power generation currently represents around 74% as part of our generation mix."

The rest of the country's energy is provided by 7% hydro, 4% wind, 3% solar PV, 1% solar CSP, 7% oil and 3% nuclear. He said it was critical for the country to understand the trade-off between the new investments needed in power generation and the reduction in coal mines' production, as well as the closure of some stations around 2040, as driven by emission targets.

Image Credit: Adobe Stock

South Africa's National Development Plan highlights the need for the nation to transition to a low carbon energy economy.

Minister Mantashe added, "The country was making steady progress on its hydrogen society roadmap, meant to set out a vision for an inclusive hydrogen society in South Africa, so that an enabling compact between industry, labour, community and government can be developed."

G3-PLC, A COMMUNICATION TECHNOLOGY FOR THE AFRICAN SMART GRID

The G3-PLC provides the ability for high-speed and long-range communications across existing powerline grids to ensure they are truly smart.

Speaking at Enlit Africa 2021, Kevin Jones, principal engineer at Renesas Electronics Europe and Matteo Varesio, senior software application engineer at STMicroelectronics, explained how the lack of cost-effective and standardised communications that deliver the bandwidth and security for smart grids can often hamper their implementation and development. The G3-PLC meets the challenges of difficult powerline communications with its unique features such as a mesh routing protocol to determine the best path between remote network nodes, a robust mode to improve the communication in noisy channel conditions and channel estimation to select the optimal modulation scheme between neighbouring nodes.

While most of the installations are in Europe, the G3-PLC Alliance has been expanding so it now has a presence in China, Malaysia, Japan, India as well as other pilot trials in South America. In regards to Africa, Jones commented, "One of the earlier adopters was ESKOM in South Africa and we have other regions and installations across the continent as well. Madagascar has over 400,000 metering points, Kenya has around 300,000 metering points, there is STEG Tunisia with around 100,000, not to mention other smaller installations in countries such as Sierra Leone and Ivory Coast. It is clear to say there is plenty installations of G3-PLC in Africa. It is already a well adopted technology."

Image Credit: Enlit Africa

Kevin Jones, principal engineer at Renesas Electronics Europe.

Jones explained that G3-PLC is designed for robust and harsh market environments and has a wide range of applications. For instance Siemens are looking at in the technology in regards to electrical vehicle charging. As more electrical motors arrive on the market and receive power from the grid, this has the potential to overload it and so G3-PLC is being considered to monitor, regulate and control this. It can monitor the production and the status of renewable energy plants. Opening up more applications is the G3-PLC Hybrid which is the next generation of PLC standard incorporating radio frequency (RF) capabilities, offering extended capabilities for smart grid and IoT applications.

As Varesio explained, a single technology often has weaknesses such as a difficulty to reach related meters in rural areas or ones very far from each other. As a result, smart grids can often only cover 90-99% of devices in a network and it can be difficult to reach the 100% mark. This can be costly for utilities and therefore the hybrid solution, which was developed last year, makes it easier to reach every device in a network, saving value for customers.

Africa market back to pre-crisis levels

After the setback to business in 2020 in the wake of Covid-19, genset companies are already starting to feel the rebound. Challenges abound, but there is a quiet confidence that things may have turned a corner.

Image Credit: Himoinsa

Himoinsa generators at Sibanye Gold Mine in southern Africa.

After suffering a severe recession in the first quarters of 2020, the generator market is back and has returned to the path of growth, reaching its pre-crisis levels.

That's good news for all players supplying Africa's genset market, from manufacturers to retailers and distributors.

Indeed, the market grew by 20% on Q4 2020-Q1 2021 compared to previous quarters.

Not everything is back to normal in our world, far from it, but there are some positives in the African context.

While tourism activity is still very strongly impacted by the Covid-19 crisis, the rebound in the global economy and the price of raw materials have benefited most major African economies.

Data shows that Q4 2020 was particularly strong in terms of imports of diesel generators into Africa, though this was offset somewhat by Q1 2021 volumes, which dipped again.

Business was evenly split, it seems, across all power ranges, showing a demand for small, medium and large gensets.

This rebound, while present in all geographical areas, has been particularly strong in eastern Africa where the market even exceeds pre-crisis levels.

Prior to the pandemic, Tanzania, Kenya and Uganda had already been strong growth poles for energy demand on the back of rising economic activity.

Going forward, growth prospects for the African market in the forthcoming quarters are still positive despite lingering post-pandemic uncertainties.

Africa's potential

On a global scale, while other markets similarly present good opportunities, there is clear long-term potential in Africa given its relative lack of development compared to other regions.

> "We must continue growing in Africa and the Middle East."
>
> **FRANCISCO GRACIA, PRESIDENT AND CHIEF EXECUTIVE OF HIMOINSA**

For Himoinsa, the combined Africa and the Middle East region accounted for roughly 16% of its global turnover in 2020 – it hopes to see more.

In February, Francisco Gracia, president and chief executive of Himoinsa, said that "we must continue growing in Africa and the Middle East", but also identified the importance of Asia and the Americas as high-growth markets.

He also highlighted some of the major challenges facing all industry players right now, including new emissions regulations and the drive to developing clean, environmentally-friendly equipment.

This has resulted in the proliferation of new hybrid technologies, renewable plants and mini-grids supporting traditional

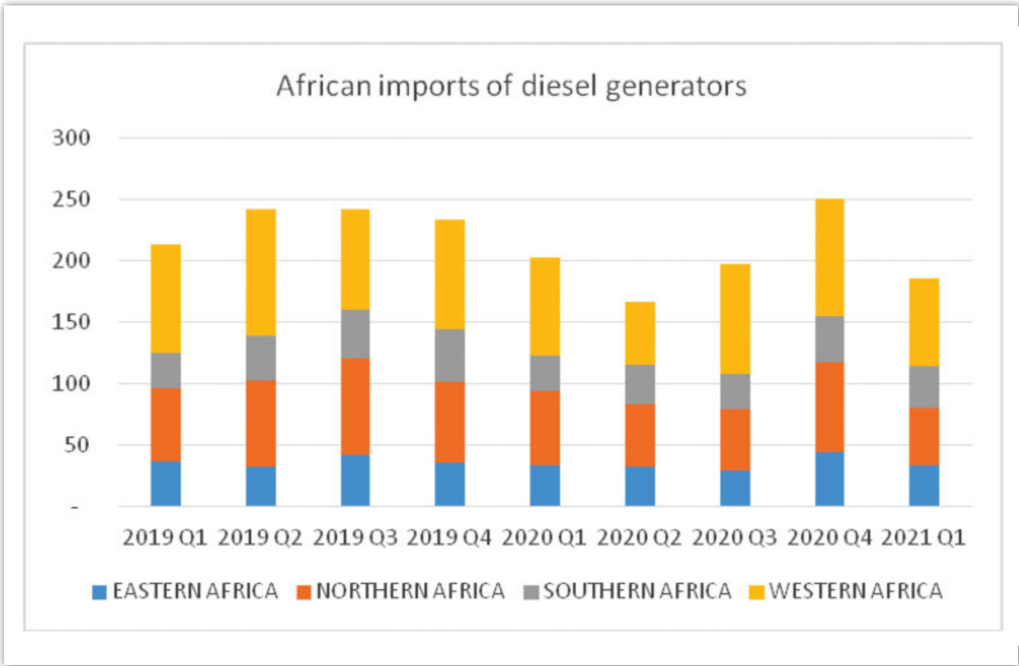


Image Credit: PowerGen Pages

genset customers, such as off-grid gold mines, a trend that has been witnessed in Africa and other territories.

Some of Africa's mines now boast highly innovative world-first power solutions that encompass a whole mix of technologies, from traditional thermal to solar-based generation.

Market highlights

In terms of markets, there has generally been an uptick across the board, although certain industries, notably tourism, have fallen away.

All segments generally returned to the path of growth by the back end of last year – infrastructure, industry, mining, healthcare, telecommunication, commercial buildings – with new and important projects carried out as the market flourished in Q4 2020.

Another key trend shaping the industry, and one that is expected to fuel new demand going forward, is the emergence of data centre projects in Africa.

While this segment is still under-represented compared to other regions of the world that host most of the data centres (North America, Western Europe, Asia), some African countries are now a destination for such projects.

Egypt and South Africa are frontrunners in this regard, while, on a smaller scale, Kenya, Ethiopia and some other territories in West and North Africa are also significant.

This has become a key focus area for the likes of Kohler, which is keen to support growth in this nascent sector.

The data centre market has already pulled in huge inward investment from multinationals – from the likes of Amazon and Huwei, keen to be early movers in Africa – though there remains significant upside potential.

Product innovation

New products and services continue to hit the market as well, underscoring the confidence among manufacturers in Africa's long-term potential.

That includes Kohler, which recently unveiled its new M139 steel generator canopy designed for harsh outdoor environments.

The new 165 kVA to 250 kVA housing offers advanced anti-corrosion protection and integrates generators for prime and back-up electricity production, suitable for application in a wide range of settings.

At the start of this year, Caterpillar announced the launch of 31 new models of Cat GC diesel gensets, a new range of value-engineered standby power solutions targeted for the global electrical contractor market. It includes 11 models with power ratings from 33 to 400 kVA for 50 Hz applications suitable for Africa and globally.

The Cat GC gensets are ideal for most typical small-to medium-sized standby applications, through to commercial enterprises and office buildings.

It further grows the range following the launch of additional models in 2020, including the 1100 kVA model launched last October for 50 Hz applications in Africa and other territories.

Across the regions

East Africa

Eastern Africa is the region that has performed best over the last six months, with growth of about 25% during that period. That's in part due to sustained demand from markets like Sudan and Ethiopia. In Kenya, the shutdown of the tourism economy has been offset by investments in the telecommunications

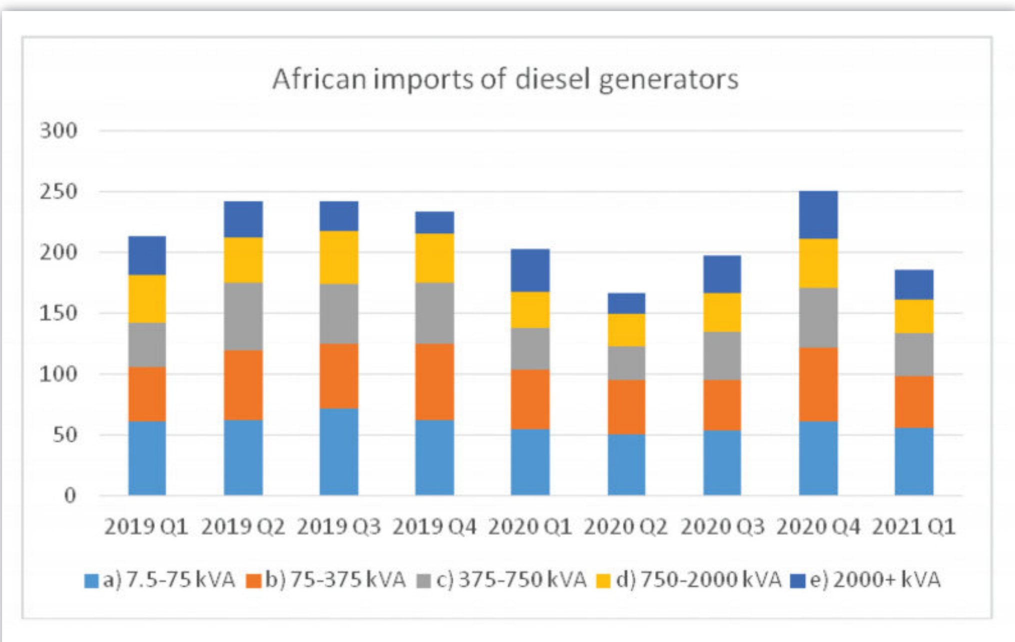


Image Credit: PowerGen Pages

sector in particular. It should also be noted that the region is conducive to certain data centre projects.

North Africa

There has been uneven growth in this region, which overall has seen demand up by about 21% in the past six months.

While Tunisia and Morocco have been struggling to return to their pre-crisis levels due to lower tourism activity and investment, Algeria and Egypt have resisted the crisis much better. In particular, the construction sector in Egypt has always been supported and again some data centre projects have been realised.

> "Southern Africa has seen genset demand rise by 15% during the past six months."
>
> POWERGEN PAGES

In Libya, although below pre-crisis levels, the market is still large for small generators (<375 kVA).

West Africa

Overall growth in West Africa has climbed by about 19% in the past six months which is partly due to the growth in demand and prices of oil and raw material.

That includes Nigeria, the region's biggest economy, which has returned to the path of growth, after feeling the pinch from sustained lower oil prices.

Guinea, also a major metals and minerals producers, making it potentially one of Africa's richest nations, has seen the import of gensets increase in the past year.

Southern Africa

Southern Africa has seen genset demand rise by about 15% during the past six months, a little slower than the other regions.

Yet the region, perhaps, has held up better than other areas thanks to South Africa's more diversified economy, which partly explains why the recovery now is slightly weaker.

It also remains a key player in the expansion of data centres, with major projects now underway and in the planning, which could yield fresh opportunities for genset makers. ■

By Martin Clark
Source: www.powergen-pages.com

THE KOHLER ADVANTAGE

Kevin Bougault, product manager, small diesel range at Kohler, talks to *African Review* about the company's plans for the years ahead.

Kevin Bougault.

African Review: Kohler recently launched its M139 canopy. Can you tell us what's unique about this product and how it's suited to African markets?

Kevin Bougault: The new M139 generator canopy offers the highest levels of anti-corrosion performance, making it particularly suitable for use in harsh outdoor environments in Africa. The canopy is made from aluminium-zinc coated steel, which provides superior protection against corrosion compared with standard galvanised steel and enables to reach at least 1,500 hours resistance without any corrosion under salt spray conditions.

AR: Are you witnessing any new trends or developments in the Africa power market, both generally and also in the wake of the pandemic?

KB: There's been data centre expansion in localised markets where the grid is stable, specifically around banking and telecoms. We're also seeing a rise in hybrid solutions, for example, generators backing up solar plants, helping to back up power where there might be unforeseen difficulties. The pandemic has thrown the gaps in critical infrastructure on the continent into stark contrast. African countries need to secure consistent and reliable power for core services like water treatment stations and hospitals – the consequences of power failure are too great.

AR: How is business for Kohler and what are your expectations for the years ahead?

KB: In 2020, the African market size reduced by 20% but Kohler succeeded to maintain our sales level. This is due to having a lot of our supply chain being based in Europe and so less impacted by the issues faced by suppliers in Asia. We also developed new products with compact design, helping to reduce transformation costs and so reducing the overall price of gensets. Crucially, we ensure that we have a high level of stock at our Le Havre location to maintain supply to our African partners. We're targeting a 10% market share in Africa. We aim to achieve this through a combination of our premium distributors network and aftercare as well as increasing availability of spare part to help customers maintain and service their generators. We're also continuously developing new products to serve the market.

AR: What's next for Kohler in the Africa market?

KB: We're leveraging our growing data centre business to support African partners as this industry grows in significance on the continent. Our extensive knowledge, state-of-the-art solutions and robust supply chain mean we are well-positioned to support the expansion of this sector. In terms of territories, there is significant growth and demand for power solutions in Nigeria, South Africa the Ivory Coast and Algeria, making them key targets for expansion.

The new M139 generator canopy.

Powering African mining

Nawa Mutumweno looks at how mining operators are turning to renewable energy sources to meet their carbon reduction targets.

Access to reliable, cost-effective (and, increasingly, green) energy in sub-Saharan Africa has been a recurring challenge for the mining industry over the years.

It is against this backdrop that mines on the continent are starting to embrace hybrid power plants and developing their own, greener sources of the much-needed electricity to effectively and efficiently power their operations.

A local mini-grid provides an efficient solution to powering mines as it avoids the transmission of large volumes of power over long distances (with the accompanying power losses) and leads to a more reliable local grid system (avoiding the loss of production time and potential property damage associated with main grid supplied electricity, usually affected by load shedding).

As a renewable power generation source, the mini-grid decreases the dependence of mining projects on diesel or heavy fuel oil (HFO). These are expensive to transport, prone to regular price fluctuations and increase the carbon footprint of mining operations.

Mines can either self-build, whereby the miner owns the renewable resource or have it delivered through an EPC contract; or renewable power purchase agreement (PPA), where the mining firm buys electricity from a renewable IPP, which owns the facility onsite.

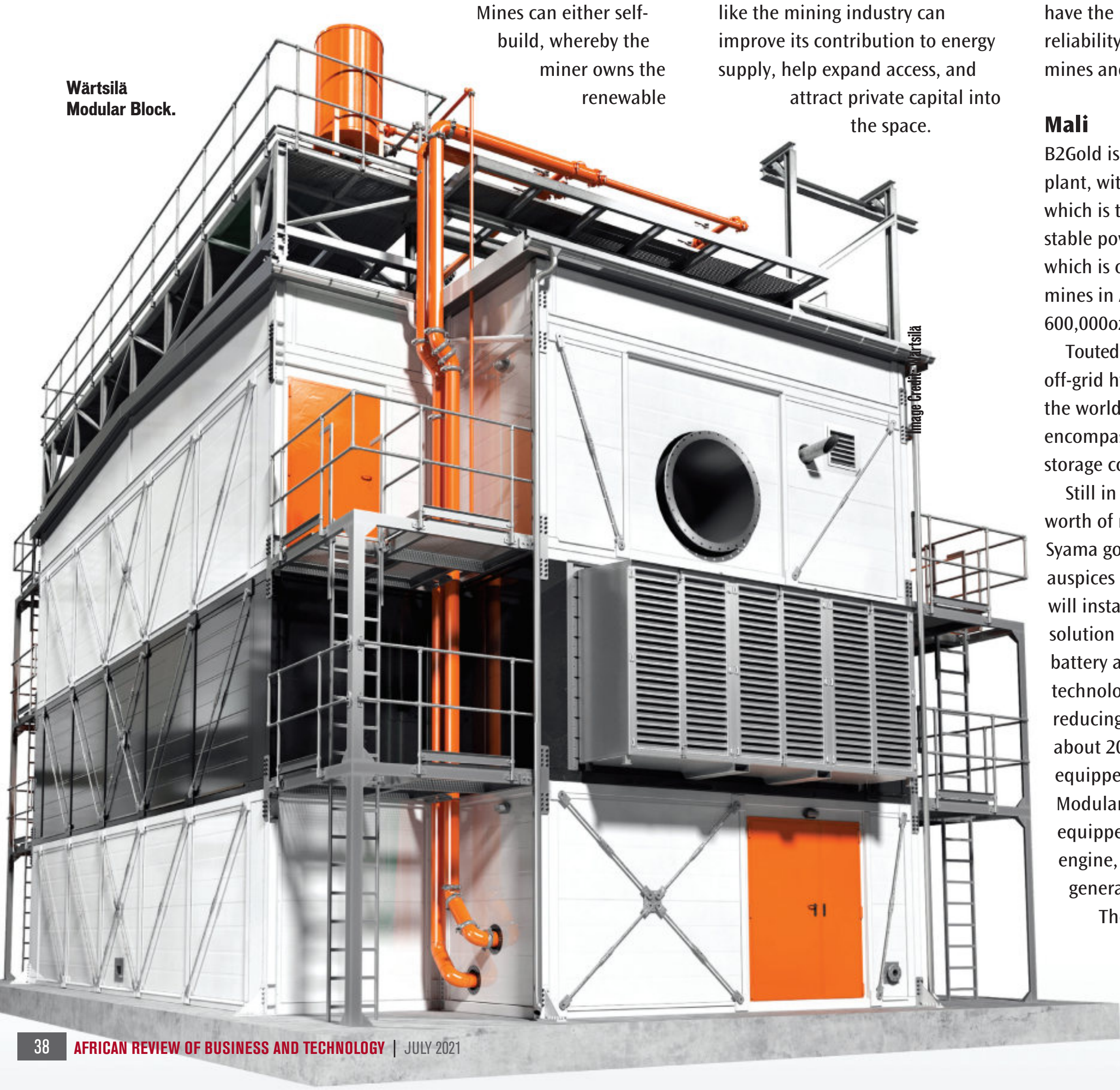
Since 2000, mines in Africa have spent around US$15.3bn to cover their own electricity investment and operating costs and have installed 1,590MW in generating capacity, according to the report: 'The Power of the Mine: A Transformative Opportunity for Sub-Saharan Africa'.

The report explores how energy-intensive, high-volume customers like the mining industry can improve its contribution to energy supply, help expand access, and attract private capital into the space.

African policymakers can put in place the risk-mitigation mechanisms to create an operating environment where innovative power-mining arrangements can thrive.

The uptake for renewable energy generation in the sector is rapidly increasing and becoming a top agenda item for many mining companies on the continent.

There are a number of projects underway across the continent, including at B2Gold's Fekola mine in Mali, Syama gold mine also in Mali, Essakane mine in Burkina Faso and Ivanhoe in the DRC. These projects have the potential to improve the reliability of power systems for the mines and improve operations.



Wärtsilä Modular Block.

Image Credit: Wärtsilä

Mali

B2Gold is developing a 36MW solar plant, with 92,000 solar panels, which is tailored to facilitate a more stable power supply at Fekola mine, which is one of the largest gold mines in Africa. Production stood at 600,000oz of gold in 2020.

Touted to become one of the largest off-grid hybrid solar/HFO plants in the world, the US$38mn project will encompass a significant battery storage component of 17MW.

Still in Mali, one hybrid plant worth of note is the new one at the Syama gold mine under the auspices of Resolute Mining, which will install one integrated power solution that will embrace solar, battery and thermal generation technologies in addition to reducing carbon emissions by about 20%. The existing solution is equipped with four Wärtsilä Modular Block enclosures, each equipped with a Wärtsilä 32 engine, replacing the diesel generators powering the mine.

The new plant, which will be more efficient will reduce the mine's power costs by about 40%. The highly automated Syama mine produced 243,000oz of gold in the first quarter of 2019.

Copper production in DRC

Among Ivanhoe's top priorities is to enter the circle of most green copper mines in the world. This is drawing closer with its Kamoa-Kakula initiative to tap electricity from three existing hydropower plants in the country, which have a 200MW combined capacity when upgraded and re-commissioned.

Robert Friedland, Ivanhoe's executive chairman, said the project represents a major private-public partnership venture, which brings together SNEL, DRC's state-owned public utility, Ivanhoe and Zijn Mining Group, its main joint venture partner.

"Hydropower, with its virtue of being clean and renewable, is the best energy solution to support our development priorities as we continue to look for ways to reduce our impact on the environment and produce the copper the world requires," he explained.

> "Hydropower, with its virtue of being clean and renewable, is the best energy solution to support our development priorities."
>
> **ROBERT FRIEDLAND, IVANHOE'S EXECUTIVE CHAIRMAN**

Burkina Faso

According to the London-based World Gold Council (WGC), solar power is transforming the Essakane mine in the country. IAMGOLD's subsidiary, IAMGOLD Essakane SA, has partnered with Total Eren, AREN Energy and Essakane Solar SAS to source electricity from a 15MWp (megawatt peak output) solar power plant to the company's Essakane mine.

"The agreement is for an initial period of up to 15 years and will help the company reduce its environmental footprint and electricity costs. The project will allow integration of a solar plant into the mine's existing 57MW HFO power plant, making it, at the time of construction, the world's biggest hybrid HFO-solar plant," said WGC.

Benefits for the mine are reduced fuel costs and a smaller carbon footprint. The capability to control and optimise the usage of the solar photovoltaic (PV) power and engines enables the gold mine to reduce its fuel consumption by an estimated 6 million litres and CO_2 emissions by 18,500 tons annually.

"This project represents a major breakthrough in the industry. Hybrid solar PV-engine solutions will allow energy intensive industries to enter an era of more climate-friendly operations, improve business and increase resilience to oil price variations," elaborated Christophe Fleurene, vice-president, business development for Africa, EREN Renewable Energy.

Despite there being a strong economic and business case for power-mining integration, this promising and feasible opportunity remains untapped in many countries. This untapped potential can spur the mining sector and help invigorate national development continent-wide. ■

The importance of reliable power in the mining industry

To an even greater extent than their global counterparts, African mining companies' margins are under pressure. The sector has made significant strides to steer through disruption and volatility, with regulatory changes, new technologies and core costs shaping the future of mining.

Dynamically managing risk is key to ongoing success, with faster throughput, lower downtime and operational efficiency at the heart of every decision. Paul Brickman, director of sales and marketing at Crestchic Loadbanks explores the role of load banks in ensuring that energy supplies are as resilient and reliable as possible.

In sub-Saharan Africa, the remote location of many important mineral deposits means that there are a large number of mines that are not connected to national or regional electrical grids. For grid-connected sites, power continuity can also be an issue – with the Minerals Council South Africa recently stating that load-shedding (power outages) had cost the economy an estimated R80-160bn (US$5.75-$11.5bn) in 2020 alone. As a result, many mines rely on generators and turbines to power operations. When commissioning and operating these power systems, it is important to ensure that they are properly tested and able to run effectively under actual site conditions, with regular testing absolutely crucial to the ongoing performance and reliability of power generation equipment.

Image Credit: Crestchic

Proper testing of power systems needs to be in place to ensure continuity of operations.

Full testing

Having recently supplied load testing equipment to AngloGold Ashanti's Geita Gold Mine, located in the Lake Victoria goldfields of the Mwanza region in north western Tanzania and Siguiri Gold Mine, situated in the north east of the Republic of Guinea, Crestchic is no stranger to working with mining operations in Africa. As such, the company always recommends full testing at the commissioning stage. Whilst factory testing is robust and thorough, site conditions are often very different when it comes to heat, humidity and air quality – all of which can impact the performance of power generation equipment.

In addition, mine operators should not overlook the importance of regular testing and preventative maintenance. Using a load bank to apply a load to the generator will simulate real-life conditions – allowing users to test the fuel, cooling and exhaust systems, as well as the controls and switches. Failing to test the system regularly puts the generator at a very real risk of failure.

Wet stacking

Running a generator on full load also helps to avoid "wet stacking", which can cause generators to run ineffectively – resulting in reduced power, increased emissions and increased operational costs. When this happens, the engine can be cleaned up by running it at full load to burn off excess fuel, using a load bank to place a load on the system. Regular "black start" testing will also ensure that standby generators are capable of taking on the full load in 10 to 15 seconds in the event of a power failure.

For more information on Crestchic's load banks, visit https://crestchicloadbanks.com

Ecomondo and Key Energy return to Rimini Expo Centre in October

2021 will be full of important international appointments for the green economy. Among the most important are those of Italian Exhibition Group SpA, which has announced the dates of Ecomondo and Key Energy: from 26-29 October at the Rimini Expo Centre, in Italy.

Following the Special Digital Edition of 2020 (due to the pandemic) the two IEG expos dedicated to sustainable development and climate change are returning live to provide the vast business community a place for discussions and networking on these two important topics. In fact, as well as being well-proven business platforms, Ecomondo and Key Energy represent a true think-tank, which has always tackled the issues at the core of government agendas, as well as those challenges in the entrepreneurial, finance and public administration spheres.

The live re-start of the expos is an important sign that was eagerly awaited by the international community. In fact, expos are among the most powerful business multipliers and, in perspective, thanks to the Recovery Plan of 750bn euros funded by the European Union, green transformation will be at the top of the list of government commitments.

Image Credit: Italian Exhibition Group

The picture has been taken at the last edition of Ecomondo held at Rimini Expo Centre in Italy.

Ecomondo and Key Energy, which will occupy almost 130,000 sq m of the Rimini Expo Centre, will be divided into a special layout to accommodate the institutional and business networking areas. Waste and resources, remediation and hydrogeological risks, the circular bioeconomy and water are Ecomondo's main sectors while renewables, storage and distributed generation, energy efficiency and smart cities are focus areas for Key Energy.

For further information visit https://en.ecomondo.com and https://en.keyenergy.it

WARNING OVER GENSET DIESEL INJECTORS AS FIRE RISK RISES

South Africans have been dismayed by a spate of destructive fires around the country, highlighting the need for diesel-powered fire pump systems to be at the ready and in good working order.

Andrew Yorke, director at Germiston-based Reef Fuel Injection Services, says the drier season approaching in most provinces is once again raising the fire risk. Yorke notes that municipal fire services are often under-capacity, and new buildings increasingly require their own water storage tanks and pumping facilities in case of fire.

"The problem is that the diesel engines driving these fire pumps stand idle for long periods," he says. "This is not good for the fuel or the engines, particularly the diesel injection systems. Now is a good time to have these checked and serviced."

Blockages or malfunctions in the fuel injector system could mean that the engine does not start at all. Alternatively, it could mean significant underperformance of the pump and even engine damage and premature failure.

"A fully functioning water pumping system is vital for companies to respond quickly and effectively to fires, which can save millions of Rands in damage and avoid crippling business disruption," he says. "Servicing the injector and fuel pumps is a low cost exercise that can be carried out quickly by our qualified technicians. In fact, it should be regularly scheduled as an integral aspect of the company's safety plan."

In this servicing procedure, a technician checks and flushes the fuel pump and injectors, and tests the calibration. Components can then be repaired, if required. This should ideally be done every 6 to 12 months, while the diesel engine itself should be started and run at least once a month.

Yorke also points out the seriousness of the damage that can be inflicted on a diesel engine by running it with a faulty fuel injection system.

Image Credit: Reef Fuel Injection Services

Specialist repairs on a generator diesel injection system underway at Reef Fuel Injection Services.

"Water pumps and generator sets, unlike vehicles, immediately accelerate to operating speed when they are started up," says Yorke. "As a result, faults in the system can quickly cause considerable damage before they are detected. Such damage, which could extend to catastrophic engine failure, is much more expensive to repair than the cost of servicing the fuel injectors regularly. These simple checks will help ensure that the company's extensive investment in firefighting capacity is put to good use when the occasion demands it," he concludes.

Power utility boost from large WEG transformers

Precision manufacturing at the WEG Blumenau factory in Brazil has allowed Zest WEG to supply two large, custom-built power transformers to a power utility in South Africa, strengthening the reliability of the region's power system.

The 500MVA 400kV transformers passed the factory acceptance test (FAT) and paved the way for an early delivery. This achievement, according to Jan-Frederik Viljoen, executive transformers at Zest WEG, is a testament to the company's design and manufacturing quality.

The 348 t units are the largest ever produced by WEG – with each unit boasting a power rating of 500,000kVA and voltage class of 400kV. This delivery efficiency reinforces Zest WEG's position in the local market.

"Our South African team participated actively in this project, reaffirming WEG's commitment to the development of our employees and the transfer of skills. We see this as a vital contribution to the development of the country, as well as the alleviation of the energy shortage in the region," added Viljoen.

He says the benefits of these transformers include robustness, flexibility and reliability, contributing directly to the development of the local economy. They are also an important element of expanded investment in emergency capacity to generate complementary power supply for the region.

Zest WEG's manufacturing operations in South Africa include two transformer factories near Johannesburg, which produce and supply the local market with 145kV voltage class transformers.

Image Credit: Zest WEG

The largest transformer yet produced by WEG during manufacturing at the Blumenau factory in Brazil.

This contract is an important achievement for Zest WEG, a company already well established in the mining and industrial sectors, as it aims to deepen its contribution to power generation, transmission and distribution as part of its developmental mandate. In pursuit of this the company is currently raising its level of engagement with power producers and municipalities.

Zest WEG's portfolio includes power distribution equipment such as miniature substations, distribution transformers and power transformers, as well as packaged switchgear and automation solutions, such as E-Houses, Motor Control Centres (MCC) and electrical enclosures.

Among its power generation solutions are conventional diesel generators, combined heat and power generation (CHP) and renewable energy generation. Other offerings relevant to the public sector include the supply of substations and electrical infrastructure, including the design, supply and construction of overhead lines, substation mechanical and electrical construction, and electrical high-voltage and low-voltage reticulation. ■

> "We see this as a vital contribution to the development of the country."
>
> JAN-FREDERIK VILJOEN, EXECUTIVE TRANSFORMERS AT ZEST WEG

Lucara secures credit approved US$220mn senior debt facilities for Karowe mine

This debt package is set to supplement cash flows from continued operations of the open pit over the next five years.

Lucara Diamond Corp has secured credit approved US$220mn senior debt facilities for the underground expansion of the Karowe mine and extended availability of its working capital facility in Botswana.

The facilities will include two tranches: a project finance facility of US$170mn to fund the development of the underground project, and a working capital facility of US$50mn to support the ongoing operation of the Karowe open pit mine.

The five mandated lead arrangers (MLAs) are ING Bank NV, Natixis, Societe Generale, London Branch, Africa Finance Corporation (AFC), and Afreximbank (Afrexim).

Eira Thomas, president and CEO, Lucara Diamond Corp, commented, “Securing credit commitments for the arrangement of US$200mn senior debt facilities from five leading international financial institutions, with significant mining and metals track records and experience in Africa, is an important achievement for Lucara and a strong endorsement of our underground expansion plans.”

“The Karowe diamond mine remains one of the world’s highest margin diamond mines and in just over eight years of production, has yielded four of the 10 largest diamonds in recorded history, including the 1,758 carat Sewelô, the largest diamond recovered from Botswana, and the 1,109 Lesedi La Rona, which sold for US$53mn. This debt package will supplement cash flows from continued operations of the open pit over the next five years, extending Karowe's mine-life out from 2025 until at least 2040.”

Additionally, Lucara has also announced an extension of its current working capital facility of US$50mn with Rand Merchant Bank, a division of FirstRand Bank. The current facility is expected to be extinguished when the project financing debt package achieves financial close.

TOMRA ANNOUNCES NEW CEO

Global sustainable technology company TOMRA Systems ASA has announced the appointment of Tove Andersen as its new CEO.

Andersen will replace the current president and CEO Stefan Ranstrand by 1 November.

Tove joins TOMRA from global agricultural products and environmental protection agents provider, Yara International, where she is currently executive vice president Europe.

Commenting on her appointment, Tove said, “I’ve seen the great work that TOMRA is doing to enable the circular economy while also ensuring resource responsibility and minimising waste across the food, recycling and mining industries. It is really motivating to be joining TOMRA to lead the resource revolution.”

Ranstrand, who has been TOMRA’s president and CEO since 2009, said, “Tove has vast international experience working for Yara, a company like TOMRA that has sustainability at the core of its strategy.”

GOVIEX ANNOUNCES DRILL PROGRAMME ON MUTANGA PROJECT IN ZAMBIA

GoviEx Uranium has executed a drilling contract with Hydro Tech Drilling & Exploration (Z) LTD (Hydro Tech) to undertake exploration and resource delineation drilling programmes at the Mutanga Uranium project in Zambia.

Daniel Major, CEO at GoviEx Uranium, said, “With the reissued Chirundu Mining Permit we are keen to get back to advancing our Zambian assets with the development of Mutanga. The project benefits from very simple and straight forward operations due to low-waste stripping, low acid consumption and potentially one of the lowest capital expenditure requirements of its African peers needed to get into production.”

“The mine plan currently forecasts an 11-year mine life and the drill targets identified through trenching, in known uranium intersections, indicate potential for resource extension making this a potential long-life project. Furthermore, considerable metallurgical test work has already been undertaken to a pre-feasibility study standard, providing considerable confidence on the process route considered,” added Major.

GoviEx has planned a 8,000m down-hole percussion drilling programme, focused on the Dibwe East deposit and new areas defined by previous trench sampling to its East. The objectives of the programme are:

1. To upgrade the mineral resource associated with the Dibwe East deposit from an inferred to an indicated category, allowing its inclusion in a feasibility study. Drilling will be carried out on a 100m x 50m grid to an average depth of 110m. The Dibwe East deposit currently contains 43.1mt of ore.
2. To undertake exploration drilling on three trenches on strike and to the east of Dibwe East, which have previously shown anomalous uranium.

BRIEFS

Gabon’s manganese alloy exports rose 15% in 2020

Image Credit: Adobe Stock

Gabon aims to produce 9.7 million tons of manganese in 2021.

In 2020, manganese alloy exports in Gabon increased by 15% compared with the previous year, according to figures by the Central African nation's government.

Gabon exported 46,468 mt of the metal in 2020, despite the production dip at the lone mining site of the Moanda Complex factory.

In the country, manganese is mainly produced and exported by the Compagnie Miniere de l'Ogooue, the regional unit of French Eramet S.A.

Tanzania’s gold exports value rises by 24%

Image Credit: Adobe Stock

Tanzania is one of Africa’s top gold producers.

Tanzania's gold exports value rose by 24% in the year ended April 30.

As reported in MarketWatch, this is mainly because of an increase in global prices as well as the government’s efforts to closely monitor the mining sector.

The source additionally reported that the value of gold exports in the country increased to US$3.03bn within the period, rising from US$2.44bn a year earlier.

Asante Gold given green light on licences from Ghana's Minerals Commission


Image Credit: Adobe Stock

Asante Gold allowed to explore concessions in Ghana.

Asante Gold has received notice from the Minerals Commission of Ghana that eight highly prospective concessions, covering 314 sq km have been recommended for transfer to Asante.

These licences are comprised of the Diaso (104.1 sq km), Juabo (59.2 sq km), Manhia (18.69 sq km), Dunkwa Gyimigya (32.72 sq km), Gyimigya (5.52 sq km), Agyaka Manso (40.0 sq km), Amuabaka (28.86 sq km) and Nkronua-Atifi (24.97 sq km) prospecting licences.

In a statement by the president and CEO Douglas R. MacQuarrie, all licences are being acquired on an as issued by the Minerals Commission basis, from Goknet Mining Company, pursuant to the terms of agreement with Goknet dated December 28, 2016.

The concessions were variously explored by Canadian exploration juniors Nevsun Resources, Tri-Star Gold and Golden Rule Resources in the late 1990's, and most recently by PMI Gold Corporation (now Galiano Gold) from 2002 through August 2014 when rights to the land were acquired by Goknet.

Extensive work programmes consisting of airborne magnetic, electromagnetic and radiometric surveys, ground geophysics, regional silt and detail soil sampling, auger, aircore, reverse circulation and diamond drilling, and advanced exploration/structural interpretations have been completed. Multiple areas with initial discovery drill holes have been outlined for further follow-up by Asante. The Juabo, Diaso and Manhia concessions are on strike with Asante's Keyhole Gold project, an area which has been the subject of extensive alluvial mining over a 7km length over the past 40 years. Their acquisition will finally allow the company to commence an aggressive exploration programme to locate the bedrock source of the gold mineralisation under the Ankobra River, a strong northerly trending structure which stretches 200km from the goldfields at Tarkwa/Prestea to Newmont's Ahafo gold mine.

SEEQUENT APPOINTS NEW CHIEF EXECUTIVE OFFICER GRAHAM GRANT

Geoscience software company Seequent has promoted Graham Grant to chief executive officer, following six years as the company's chief operating officer. In a planned transition, Grant succeeds Shaun Maloney, who has retired after a decade in the role.

"On behalf of the Seequent board, I'd like to warmly welcome Graham as chief executive officer," said Maloney, who continues to serve as Seequent's executive chairman. "Leading Seequent and its fantastic team into the company it is today has been a great honour - and Graham has played an integral role in this journey for the past nine years. Seequent's future is in skilful hands with Graham."

Grant said, "It's an honour to take the helm at Seequent. What Shaun and the Seequent team have achieved - building this company from what was a small Christchurch-based start-up 17 years ago, to a truly global company providing innovative solutions to geoscience challenges in over 100 countries - is remarkable."

METSO OUTOTEC WINS LIBERIA MINE CONTRACT

Mapa Group has awarded Metso Outotec a contract for the delivery of key grinding technology to their gold mine expansions in Liberia and Burkina Faso.

Metso Outotec will deliver identical grinding lines to both sites, consisting of Premier ball mills and energy-efficient Vertimill VTM-3000 stirred mills, each line featuring a capacity of 400tph.

The deliveries are expected to take place in January 2022.

"Mapa is a major conglomerate working in various industrial and construction sectors. For us, good support, reliable project execution, and sustainable equipment and process performance are essential. Alongside the existing good relationship between the companies, they're the reasons why we selected Metso Outotec for these projects," explained Mustafa Bülent Karaarslan, COO, Mapa Group.

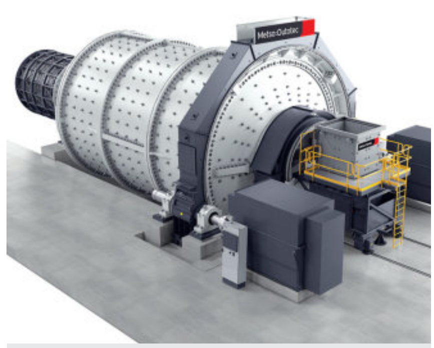


Image Credit: Metso Outotec

Metso Outotec Premier ball mill.

Mert Katkay, head of minerals sales for Metso Outotec in the Middle East and Turkey, added, "We are excited that Mapa has chosen us to deliver the key equipment for the expansion of these two projects in Liberia and Burkina Faso. Previously, we have delivered the key crushing, screening and grinding equipment to these two mines."

BRIEFS

Copper ore delivered to Kakula Mine


Image Credit: Adobe Stock

Kamoa-Kakula copper concentrator plant operations are underway.

Ivanhoe Mines co-chairs Robert Friedland and Yufeng Sun are pleased to announce that the commissioning and ramp up of the Kamoa-Kakula Phase 1, 3.8 mtpa concentrator plant in the DRC have progressed quickly toward nameplate capacity of 3.8 million tonnes of ore per year. Kamoa-Kakula's initial copper concentrate was produced on 25 May. 71,000 tonnes of ore grading 4.07% copper have been conveyed from Kakula's underground operations to the concentrator.

Chariot acquires AEMP to power African mines

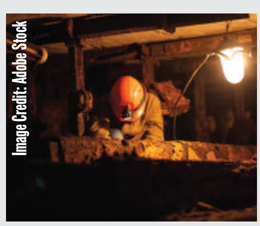


Image Credit: Adobe Stock

Chariot to provide competitive energy to mines in Africa.

Chariot, an Africa-focused transitional energy group, has announced the acquisition of Africa Energy Management Platform (AEMP), a renewable and hybrid power developer, to provide clean and sustainable energy to mines in Africa. Adonis Pouroulis, acting CEO of Chariot, said, "The launch of Chariot Transitional Power places the company in a unique position in the market. This acquisition will see us work with Total Eren, to provide competitive energy to mines in Africa."

Global standards drive improved tailings management

Mine operators are continually looking for solutions to transport, store and dispose of tailings safely and efficiently. Inefficient tailings management, however, can lead to disaster. Tim Guest reports.

Image Credit: Harmony Gold Mining Company

An example of Harmony Gold Mining's tailings management operation.

Mine operators face major challenges when it comes to tailings management. Specialist companies offer tailings expertise from pipeline transport systems as part of sustainable mine waste solutions to water extraction methods, and technology, aimed at making use of tailings in the manufacture of products and materials for sectors, such as construction.

However, if adequate processes are not put in place, inefficient management can lead to disaster. The catastrophic failure of a tailings storage facility at Vale's Corrego do Feijão mine in Brumadinho, Brazil, on 25 January 2019 killed 270 people and led directly to the August 2020 launch of the Global Industry Standard on Tailings Management (the Standard). Brazil aside, Africa itself is not without a grim history of tailings failures; a tailings dam collapsed at South Africa in 1994 killing 17 people in Free State and, previously, in 1974, a tailings dam failed in Bafokeng in the northwest of the country.

Turning our attention to the Standard, how the sector in South Africa has responded and a few of the specialist players likely to ensure best practice in the future.

Following the 2019 Brazilian tailings disaster, Tom Butler, International Council on Mining and Metals (ICMM) CEO, said it was a pivotal moment demanding decisive and appropriate action from the sector in a united, collaborative and transparent way. Accordingly, the ICMM partnered with the UN Environment Programme (UNEP) and Principles for Responsible Investment (PRI) under the guidance of chairperson, Dr Bruno Oberle, together with an expert panel and advisory group, and published the Standard. According to Butler, it sets a new, global benchmark to achieve strong social, environmental and technical outcomes in tailings management, although with a strong emphasis on accountability and disclosure. Butler said an immediate priority is for all 28 ICMM members, (who represent around a third of the global industry and include African players, such as African Rainbow Minerals, AngloAmerican, Glencore, GoldFields and Sibanye Stillwater, to ensure the Standard's full implementation. He said the Standard will be integrated into the ICMM's existing membership commitments; all member facilities with 'extreme' or 'very high' potential consequences will be conformed to the Standard by August 2023, and all other sites by 2025. Butler's caveat stressed the Standard is 'not a silver bullet' and the focus must now be on broad uptake and effective implementation to ensure safer management of tailings storage facilities everywhere. To help drive that forward, in May this year the ICMM launched two new resources: 'Conformance Protocols' for the Standard and a tailings management 'Good Practice Guide'. The 2019 criteria in the Conformance Protocols address the Standard's 77 requirements, enabling conformance to be assessed. The Good Practice Guide promotes good governance and engineering, including improved engineering practices across the whole tailings lifecycle, from project

> "South Africa has the largest number of tailings dams built using an architectural method considered unsafe by many engineers."
>
> REUTERS REPORT – THE LOOMING RISKS OF TAILINGS DAMS

Image Credit: ICMM

conception and design to construction and operation, closure and post-closure.

The challenge cannot be underestimated. A Reuters' report: *The Looming Risks of Tailings Dams*, published last year, stated that over 33% of tailings dams globally are 'at high risk of causing catastrophic damage to nearby communities' if compromised and that 'South Africa has the largest number of tailings dams built using an architectural method considered unsafe by many engineers'.

The good news is...

In response to the Standard, ICMM and the Minerals Council South Africa (MCSA) issued a statement calling on members to work towards ensuring they operate in line with it. The MCSA underscored the Standard integrated social, environmental, local economic and technical considerations in tailings management and 'unambiguously places accountability for tailings management at the most senior levels of company structures'.

This bodes well for setting the South Africa situation straight; the sector, too, has specialist tailings management companies to call on, such as Ecolab and its Nalco Water subsidiary active in South Africa, as well as players like SGS, offering its expertise to GoldFields, in re-processing hundreds of millions of tons of tailings from historic gold tailings dams in the Witwatersrand area. Here SGS recovers uranium and residual gold and helps eliminate long-term environmental liabilities, with tailings re-deposited far from urbanisation, allowing rehabilitation of the real estate.

Weir Minerals offers end-to-end tailings and pipeline management and employs the latest techniques from basic pumping to dewatering and transport, disposal, along with conversion of tailings into re-usable resources – addressing water conservation, operational sustainability and safe tailings deposition.

Harmony Gold Mining stresses its compliance with environmental legislation, and the careful way it manages the tailings from its mining operations; it currently has 85 tailings storage facilities under management in both South Africa and Papua New Guinea comprising 24 operational facilities, 10 re-mining facilities and 51 dormant and in-active facilities. Nineteen of its operational facilities are constructed using upstream deposition, with five using upstream cyclone deposition.

With such expertise involved, implementation of the Standard's advice across South Africa and the continent could well see the dangers of poor tailings management eliminated in the short- and medium-term. ■

METSO OUTOTEC TRUCK BODY HELPS MINES AND QUARRIES HAUL MORE

Metso Outotec's truck body, available for operations in America for the first time, has been designed to maximise the availability and performance of haul trucks while reducing the costs for service and maintenance.

The groundbreaking innovation that combines the benefits of rubber and a high-strength steel structure has been well-received by customers. It is the first order globally for a truck with loading capacity of 360 tons.

Recently, one of the world's largest copper mines decided to invest in a Metso Outotec truck body, with the customer looking to increase payload of its trucks while also reducing maintenance.

"We will supply a truck body with lower weight and major volume capacity compared to the OEM body. We can prove with objective calculation the benefits the customer is going to receive, such as fuel savings, less maintenance, more uptime, the possibility to increase payload on each hauling, as well as improving the truck body's life. All these benefits are answering to growing demand for environmental efficiency," said Alfredo Rios, business support manager, loading and hauling, Americas, Metso Outotec.

Metso Outotec truck body key benefits:

- Up to 30% lighter than a conventional steel-lined truck body.

Metso Outotec's truck body was launched in 2019.

Image Credit: Metso Outotec

- Lower fuel consumption per hauled tonne, less CO2 emissions.
- The rubber lining lasts up to 300% longer than conventional steel lining, drastically reducing the need for maintenance.
- Modular design makes the lining easier to install and maintain.
- Noise cut in half; vibrations reduced by up to 97%.
- Available for all common truck models.

VOLVO CE OFFERS ENHANCED FUEL EFFICIENCY

Volvo Construction Equipment (Volvo CE) has introduced three new hybrid excavators that offer a further fuel efficiency improvement of up to 17% compared to conventional machines. The new range comes in the form of an enhanced 30-ton class EC300E Hybrid excavator, and the introduction of the technology in two new machines - the 25-ton class EC250E Hybrid and 35-ton class EC350E Hybrid.

The machines use Volvo's novel hydraulic-hybrid technology that harvests energy generated by the down motion of the excavator's boom. The powerful and regular boom-down motions charge a hydraulic accumulator, which then stores and delivers energy, when needed, to drive the hydraulic assist motor that helps power the engine system. The hybrid models offer the same levels of controllability and performance as the standard machines, including being able to work in eco mode and hybrid mode simultaneously.

The extra energy boost, which the hybrid system is able to offer, helps take the load off the engine, and delivers improved fuel efficiency of up to 17% with up to 15% less CO2 emissions - particularly important when working in urban areas. When used in 'dig and dump' applications this approach offers rapid payback.

While the EC250E Hybrid and EC350E Hybrid are all new, the EC300E Hybrid has been comprehensively upgraded. It features a range of new features including a 700kg heavier counterweight, new priority functions, adjustable boom-down speed control, improved response times, and improved fuel efficiency thanks to intelligent electro-hydraulic technology and a new D8M Volvo engine.

Liebherr expands mining truck range with T 274

The Liebherr T 274 is a 305 tonne haul truck which bridges the gap between the T 284 (363 tonne) and the T 264 (240 tonne). Following the same base design as the T 284, the T 274 provides faster cycle times, higher production rates, lower fuel consumption, and a lower cost per tonne.

The T 274 is powered by the most powerful engine in its class at 3,650 hp and the Liebherr Litronic Plus AC Drive system, which improves the cycle time efficiency by providing continuous uphill speed, differing from traditional mechanical drive trucks that require shifting of gears.

The truck is equipped with 4,500kW/6,035hp dynamic braking power to operate efficiently on downhill hauls. All Liebherr trucks offer at least two safety exit routes from the cab to the ground and have ladders and platforms that allow easy engine access. The T 274 features a double A-arm suspension, which keeps optimal ground contact of the tyre within the whole suspension stroke, reducing the tread and wear with optimised camber and toe angle.

The fast swing times of the R 9800 will load the T 274 with four bucket passes ensuring quick loading times that lead to high production rates of both the truck and excavator – making it an excellent pairing. The T 274 is also compatible with the brand new R 9600.

The Liebherr Trolley Assist System, available as an option on the T 274, utilises an overhead pantograph to connect the electric-drive system to the electrical network in order to either increase truck fleet productivity, or reduce the fleet size while maintaining yearly production. This can result in a significant reduction of diesel fuel consumption and CO2 emissions. Liebherr also offers an array of specific solutions for customers working in extreme environments to guarantee that the T 274 will be fit for any working conditions.

The Liebherr T 274 follows the same base design as the T 284.

Image Credit: Liebherr

Unbottling minerals processing plants

ELB Equipment explains why it is the leading supplier of screen media and its successes so far.

It is not uncommon to find multimillion Rand processing plants with enormous production potential being severely restricted by poorly specified or old-fashioned screening media.

Provided that the plant is fully operational and is appropriate for the job, the screen is the usual culprit that slows production or leads to unacceptably high levels of downtime. Fortunately, with the right expertise and best products for the job, help is at hand for these ailing operations. Minerals processing equipment supplier, ELB Equipment, in partnership with internationally acclaimed screen media manufacturer, Major Wire, has spent several years fixing screening problems at an almost endless array of processing plants.

Waynne Martin, technical sales representative of ELB Equipment, says the company's partnership with the world's leading supplier of screen media, enables the company's technical teams to identify the source of a screening problem and provide solutions to bring the equipment back up to the required spec and further improve on its performance through the use of a wide range of Major Wire screen solutions for practically any application.

Image Credit: ELB Equipment

Major Wire screens provide more durability and wear protection than traditional screens with more open space for improved throughput.

Success stories

Examples of the type of improvements obtained with Major Wire screens in the mine and quarrying industry are many, including a recent instance where imported anthracite was difficult to process due to its "sticky, wet" consistency and was grinding production to a snail's pace. The introduction of a carefully selected Major Wire tensioned screen immediately boosted production by 50% with a host of other benefits to boot.

More recently a simple upgrade of its traditional panel-type mesh screens, to Major Wire's Flex-Mat screens, allowed a major diamond producer to reduce carry over by more than 15%. Similarly, one of the country's largest cement producers was able to improve the production feed rate of highly abrasive dolomite to 360 tons per hour (TPH) from its previous 180 TPH. Simultaneously, carry over was reduced from 35% to zero and the panel's wear-life was improved from having a seven-week lifespan with traditional woven mesh, to more than 11 months with the Flex Mat solution. The enormous wear-life capabilities eventually led to a further reduction of wire diameter for an even more open area while maintaining a lifespan of more than six months. It also reduced up to one hour of maintenance per shift.

Another recent success story worth mentioning is of a metal recovery plant that was experiencing severe pegging and blinding issues where the screen needed to be cleaned manually by pick and hammer wielding workers for at least two hours per day. A simple upgrade to a Major Wire tensioned screen solved the problem and no cleaning has been required thereafter. A similar case reduced a major coal mine's screening costs from 63c per ton using woven wire screens to just 23c using Major Wire Flex-Mats.

Percentage improvements

"This is a game of percentages, and even the smallest improvements can have a significant effect on a company's bottom line," says Major Wire business development manager, John Pelser. "Savings as a result of reducing downtime, production volume increases and the move towards improved overall productivity can usually be measured in millions of Rands and tons.

"With the right products and expertise to boot, local distributor ELB Equipment has an entirely dedicated screening division dealing with mines and quarries to improve overall processes. Holistically it is not just about saving capacity on site, but rather problem-solving overall screening efficiency, cost of ownership etc. We also provide training on site in order to get the whole team up to scratch when it comes to operation and maintenance of our screens.

"What's more customers can ask for a full vibration analysis on their existing screens to ascertain the speed, stroke and g-force of the equipment and measure its effectiveness before undertaking any upgrades so that the right screens can be fitted accordingly," Pelser added.

> "With the right products and expertise to boot, local distributor ELB Equipment has an entirely dedicated screening division dealing with mines and quarries to improve overall processes."

Well supported

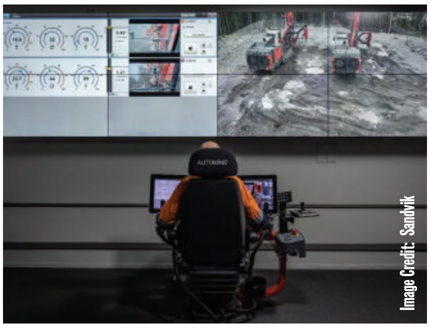
In terms of service and support, ELB Equipment has a vast branch and dealer network throughout southern Africa with well trained and dedicated staff to service customers' screening requirements. Sufficient stock holding make for quick parts turnaround, and where necessary stock can be held at branch level anywhere in the sub-region. A good example of this is our maximum four weeks lead time for first time delivery to new customers and a one-to-three-day lead time for existing customers. ■

SANDVIK: WALKING THE JOURNEY OF AUTOMATION IN SOUTHERN AFRICA

Mine automation not only holds great potential in southern Africa, but it is already seen by many mines as an essential element of their future productivity and commercial sustainability.

According to Simon Andrews, managing director at Sandvik Mining and Rock Technology Southern Africa, his company has long been applying the world's most advanced technologies on the sub-continent, with local skills underpinning its success.

"Our differentiator is that we can take state-of-the-art technology – the result of our global investment in research and development – and apply it to the needs of our local customers in their backyards," said Andrews. He disputes the view that the latest technologies are not applicable in Africa, due to factors like skill deficits or infrastructure shortages. Rather, Sandvik Mining and Rock Technology has been leveraging local expertise through an ongoing process of upskilling and change management.



AutoMine allows operators to operate the machines from the safety of a control room.

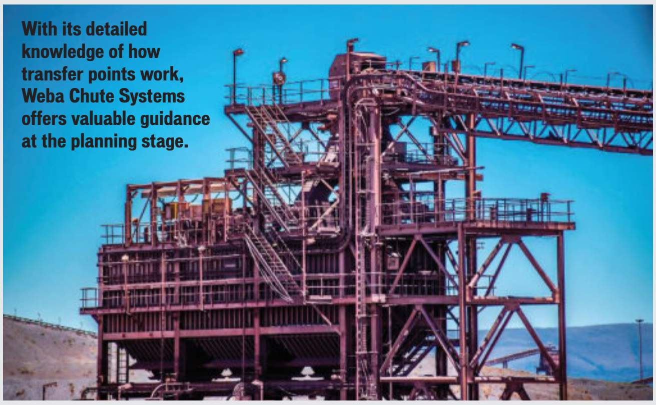
"Automation is a journey that our customers embark upon over a period of time," he said. "We support this process through our range of intelligent mining equipment, and through resources like our Fleet Data Management (FDM) system."

The FDM allows mines to analyse operational data from Sandvik machines, such as pressures and buckets loaded. This information can be used by management to improve the effectiveness of equipment, and to advance toward semi-automation and later full automation.

Andrews highlights that automation has been an important focus of contracts in Botswana, South Africa and Zimbabwe – with intelligent models of equipment, such as load-haul dumpers, articulated dump trucks, twin-boom drill rigs and roof bolters on the order lists.

No short-cut to chutes that perform reliably and safely

While there are many 'look-alike' transfer chutes on the market, it is the demanding original equipment manufacturer (OEM) standards of Weba Chute Systems that keep mined material as well as industrial materials moving smoothly.



With its detailed knowledge of how transfer points work, Weba Chute Systems offers valuable guidance at the planning stage.

Image Credit: Weba Chute Systems

"Through our focused dedication for many years, we have developed the design, engineering and manufacture of transfer chutes into a science," said Weba Chute Systems technical manager and designer Dewald Tintinger. "This is what gives our customers the peace-of-mind that their operations will not be disrupted by unplanned stoppages due to premature chute failure."

Tintinger points out that a chute is often viewed – quite erroneously – as just a platework commodity that any general manufacturer or fabricator can produce on demand. The danger in this approach is that the performance is generally not optimal, the reliability is certainly not guaranteed, and there may not be any technical backup when it is required. The design is from the ground up, with skilled draughtsmen using the latest specialised software to model material flow in line with operational needs. This facilitates optimising the material trajectory into the chute, out of the initial impact area, through the chute itself and into the discharge area. Once a Weba Chute Systems product is installed, it can be regularly inspected and maintained by specially-trained technicians, making sure that it reliably delivers the duty required.

Advertiser's Index

All-flash data centres in the intelligent age

Huawei Enterprise describes how next-gen data centres can rise to the challenge of operating at the dawn of an intelligent era.

Image Credit: Adobe Stock

Building green, reliable, and intelligent all-flash data centres is a challenge for future sustainable development.

Explosive data has become the core means of production and the catalyst for the digital economy. In the next five to ten years, the amount of data to be stored will increase from 32ZB in 2018 to 180ZB by 2025. This data explosion will further drive the maturity of the data value chain and propel enterprises' decision-making and innovation.

Challenges facing the reconstruction of data centres

First, the in-depth digital transformation of enterprises causes huge numbers of offline services to go online, and innovative services to emerge one after another. This is exemplified by the financial sector, where the transactions per second of large banks are increasing exponentially as a result of e-commerce and mobile payments.

Second, data centres have become a major power consumer. Currently, the total global power consumption of data centres is around 2% to 3% of the annual world power consumption. High energy consumption results in high electricity costs and carbon emissions.

Third, many enterprises suffer huge economic losses and social impacts due to data loss and service disruption each year, which results in an estimated 8% fall in revenue. In the financial industry, where data is the lifeblood of business, the loss caused by system downtime reaches up to US$6.48mn per hour.

Finally, operations and maintenance (O&M) efficiency is one of the core factors in the development of data centres. This is made difficult by a large number of devices and interfaces from multiple vendors affecting the ability of organisations to locate faults and respond to service requests. Over the next five years, the amount of data maintained per capita will increase fivefold, which will further increase the difficulty of O&M and labour costs.

> "Many enterprises suffer huge economic losses and social impacts due to data loss and service disruption."

Building an all-flash data centre requires a comprehensive upgrade of the media, and also the integration of data centre resources and architecture reconstruction, in order to meet diverse future service requirements. Here are three important considerations for designing all-flash data centres:

All-scenario flash fast-tracks your services

All-scenario media flash indicates that diverse types of workloads are stored in flash media, for example, HDDs are replaced by SSDs in various scenarios, such as enterprise core systems, HPC, video, and disaster recovery. Offering the same capacity, SSDs reduce power consumption by 70% and space occupation by 50%. This slashes the total cost of ownership of data centres and helps them to go carbon neutral. In addition, the system performance of SSDs is 40 times higher than that of HDDs.

All-IP data centre network unlocks the potential of flash

Faster media and protocols call for faster networks. That brings us to the NVMe over Fabric (NVME-oF) storage network. NVMe-oF uses the IP network to innovate and upgrade the previous dedicated network, achieving higher bandwidth and lower latency. It is also easy to manage using the IP network, which is the optimal solution for implementing end-to-end NVMe. NVMe-oF solutions are currently trending in the industry.

Intelligent O&M platform improves full-lifecycle efficiency

All-flash data centres must deliver full-lifecycle intelligent O&M to implement automation and intelligence in planning, deployment, and optimisation. In the planning phase, resources are precisely planned, and the focus has shifted from device upgrade to full-lifecycle data management. In the deployment phase, global resources are automatically provisioned. In the optimisation phase, agile configuration optimisation and automatic resource prediction and change are implemented. The optimisation is performed using intelligent algorithms instead of expert experience.

Huawei's all-flash data centre solution, provides an effective way to build a future green and energy-efficient all-flash data centre. It has been used in core service systems of various industries, to better mine enterprise data value and accelerate the digital transformation journey. Along the way, emerging modern all-flash data centres are sure to achieve great things while pushing social and economic production to new heights. ■

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Linz Electric is an Italian company specialized in the production of synchronous alternators up to 1500kVA. Linz Electric's Mission is to create the most efficient solution to lead customers to success through Made in Italy quality products, flexibility in process and quick and complete service. **Linz Electric's Alternators: Energy for your Success.**

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